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An investigation of parental responses to child experiences of trauma

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A thesis submitted for the degree of Doctor of Philosophy

University of Bath

Department of Psychology

August 2016

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Signed on behalf of the Faculty of Humanities and Social Sciences.

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Abstract

Childhood trauma exposure is associated with a range of adverse outcomes, including post-traumatic stress disorder (PTSD). Parents are often children's main source of support following a trauma. However, little is known about the experiences of parents in supporting their child post-trauma and research into the relationship between parenting and childhood PTSD has yielded mixed findings. The five papers in this thesis aimed to investigate the role of parental responses in child adjustment following child trauma exposure. Paper 1 presents a meta-analytic review of the association between parenting and child PTSD symptoms. A small, yet highly significant relationship between parenting and child PTSD was identified, but given the limited number of studies available and the potential influence of methodological factors, only tentative conclusions are made. Nonetheless, the finding that parenting is associated with child PTSD informed the following four papers in this thesis. Paper 2 qualitatively examined parents' experiences of supporting their children following single-incident trauma and presentation at an Emergency Department. As no child in Paper 2 accessed psychological treatment post-trauma, Paper 3 presents an investigation of parents' views of providing care for children with clinically significant levels of post-traumatic distress. The trauma-specific aspects of parental support identified in Papers 2 and 3 highlight the need for a validated measure of post-trauma parental responses. Paper 4 describes the development and preliminary evaluation of a measure of parental appraisals and behaviours following trauma exposure. Finally, the majority of studies that examined parenting behaviours in Paper 1 were conducted in a Western, low-risk context; therefore, the aim of Paper 5 was to examine the views of parents of trauma-exposed children in the peri-urban settlement of Khayelitsha, South Africa. Overall, the results indicate that parental responses are associated with child PTSD symptoms and highlight the strategies used by parents to promote child recovery.

Chapter 1 General Introduction

1.1. PTSD in Childhood

Traumatic events, defined as exposure to actual or threatened death, serious injury or sexual violation (American Psychiatric Association, 2013) such as serious road traffic accidents (RTA) or physical assault, are relatively common in childhood with 14-70% of youth from European peacetime samples reporting trauma exposure (Alisic, van der Schoot, van Ginkel, & Kleber, 2008; Elklit, 2002). Community studies conducted in the United States have consistently found that, by the age of 16 years, approximately two in three young people have been exposed to a traumatic event (Copeland, Keeler, Angold, & Costello, 2007). High rates of childhood trauma exposure, including assaults, RTA and exposure to domestic violence, have also been found in many low and middle income contexts (LMIC) as a result of several factors, such as internal displacement, poverty, and political violence (Hofman, Primack, Keusch, & Hrynkow, 2005; Masinda & Muhesi, 2004; UNICEF, 2013, 2014). Results from the National Comorbidity Survey Replication - Adolescent Supplement based in the U.S. indicate 5% of adolescents meet criteria for post-traumatic stress disorder (PTSD; Merikangas et al., 2010), with a six-month PTSD prevalence rate of 3.7% for boys and 6.3% for girls (Kilpatrick et al., 2003). However, in high-risk LMIC contexts such as Palestine and Iraq, PTSD prevalence is estimated to be between 10-70% (Dimitry et al., 2012). Similar prevalence rates have been found in Algeria (37.4%), Ethiopia (15.8%), Cambodia (28.4%; De Jong et al., 2001). Prospective studies indicate that rates of post-traumatic stress symptoms (PTSS), such as hyperarousal, avoidance of trauma-related stimuli, and intrusive trauma memories, shortly following a trauma decline over time in most children (Bonanno, Westphal, & Mancini, 2011); however, a significant number of children will have elevated levels of PTSS from ten months up to two years post-trauma (Eksi & Braun, 2009; La Greca et al., 2013; La Greca, Silverman, Lai, & Jaccard, 2010).

Childhood PTSD is a chronic and debilitating condition that is associated with significant social and academic impairment, including poorer school performance, poor emotion regulation, physical health problems and increased contact with the criminal justice system (Abram et al., 2004; Egede & Dismuke, 2012; Moroz, 2005; Qureshi et al., 2011; Ruchkin, Schwab-Stone, Koposov, Vermeiren, & Hans Steiner, 2002; Steiner, Garcia, & Matthews, 1997). Youth experiencing PTSD will often go on to experience other comorbid psychiatric disorders, including attention deficit hyperactivity disorder,

anxiety disorders (e.g., separation anxiety, generalised anxiety disorder, specific phobia), substance dependency, and major depressive disorder (Bolton, O’Ryan, Udwin, Boyle, & Yule, 2000; Davis & Siegel, 2000; De Young, Kenardy, Cobham, & Kimble, 2012; Felitti et al., 1998; Norman et al., 2012; Perrin, Smith, & Yule, 2000; Scheeringa & Zeanah, 2008; Springs & Friedrich, 1992; Weiss, Longhurst, & Mazure, 1999). Due to the societal cost of decreased productivity, lower impulse control and additional healthcare costs, young people with PTSD who do not receive treatment are likely to pose a significant economic burden to society (Wang & Holton, 2007).

The current diagnostic criteria for PTSD, according to the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-V, American Psychiatric Association, 2013), require children to have been exposed a traumatic stressor, defined as “exposure to actual or threatened death, serious injury or sexual violation” (American Psychiatric Association, 2013, pp. 271). PTSD consists of four core symptom clusters, each of which must be present for diagnosis: avoidance of reminders of the traumatic event, intrusive re-experiencing of the event, alterations in arousal and reactivity, and negative alterations in mood and cognitions (see Table 1.1). These symptoms must have been experienced for more than one month to meet diagnostic criteria. Child PTSS have been found to be similar to PTSS in adults (Bryant, Salmon, Sinclair, & Davidson, 2007; Ehlers, Mayou, & Bryant, 2003); however, symptoms of PTSD may manifest differently in childhood due to developmental factors, such as emergent cognition and language skills (Salmon & Bryant, 2002). For example, children may exhibit re-experiencing symptoms through repetitive play or re-enactments of the traumatic event (Dyregrov & Yule, 2006). Given the overlap of the PTSS exhibited by adults and children, theoretical models primarily developed to account for the processes involved in the development of adult PTSS can also inform our understanding of childhood PTSD (Meiser-Stedman, 2002).

1.2. Theoretical Models of PTSD

In the adult PTSD literature, the examination of cognitive and behavioural responses to traumatic events has contributed to models of post-trauma adjustment (Brewin, Andrews, & Valentine, 2000; Brewin, Dalgleish, & Joseph, 1996; Ehlers & Clark, 2000). The following section provides an overview of the leading behavioural and cognitive models of PTSD.

Table 1.1

Diagnostic and Statistical Manual of Mental Disorders (fifth edition) PTSD Diagnostic Criteria

Criterion	Symptom
A1	<p>Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:</p> <ol style="list-style-type: none"> 1. Directly experiencing the traumatic event(s). 2. Witnessing, in person, the event(s) as it occurred to others. 3. Learning that the traumatic event(s) occurred to a close family member or friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental. 4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). <p>Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.</p>
B	Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
B1	Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
B2	Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
B3	Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
B4	Intense or prolonged psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event(s).
B5	Marked physiological reactions to internal or external cues that symbolise or resemble an aspect of the traumatic event(s).
C	Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
C1	Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
C2	Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
D	Negative alterations in cognitions and mood that are associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two or more of the following:

- D1 Inability to remember an important aspect of the traumatic event(s), typically due to dissociative amnesia and not to other factors, such as head injury, alcohol, or drugs.
- D2 Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” “The world is completely dangerous,” “My whole nervous system is permanently ruined”).
- D3 Persistent distorted cognitions about the cause or consequence of the traumatic event(s) that lead the individual to blame himself/herself or others.
- D4 Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
- D5 Markedly diminished interest or participation in significant activities.
- D6 Feeling of detachment or estrangement from others.
- D7 Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).
- E Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
 - E1 Irritable behaviour and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
 - E2 Reckless or self-destructive behaviour.
 - E3 Hypervigilance.
 - E4 Exaggerated startle response.
 - E5 Problems with concentration.
 - E6 Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).
- F Duration of the disturbance (criteria B, C, D, and E) is more than 1 month.
- G The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- H The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition.

Note: Adapted from “DSM-5 and post-traumatic stress disorder” by A. Levin, S. Kleinman, & J. Adler, 2014, *Journal of the American Academy of Psychiatry and the Law*, 42, p. 147-148. Copyright 2014 by the American Academy of Psychiatry and the Law. Reprinted with permission.

1.2.1. Behavioural models of PTSD

PTSD has been explained through classical and operant conditioning approaches. Mowrer's (1960) two-factor learning theory suggests classical conditioning causes fear acquisition and results in neutral stimuli present at the traumatic event to elicit fear due to their association with the unconditioned stimulus. Keane et al. (1985) proposed that a range of trauma-associated stimuli would also trigger fear responses through higher order conditioning and stimulus generalisation. Both cognitive (e.g., thought distraction) and behavioural avoidance (e.g., avoidance of trauma reminders) are thought to maintain the link between stimuli and fear responses by preventing extinction of the fear response through repeated exposure (Keane, Zimering, & Caddell, 1985). This approach provides insight into several key features of PTSD, such as the range of possible trauma reminders that can elicit physiological and emotional arousal, as well as the role of avoidance in the maintenance of PTSD. Behavioural models of PTSD have contributed to the development of exposure therapy for PTSD treatment, which has been found to be somewhat efficacious (Taylor et al., 2003). However, this theory does not fully account for other features of PTSD, including the influence of other, non-fear emotions and the impact of post-trauma appraisals and coping strategies (Brewin & Holmes, 2003).

1.2.2. Cognitive models of PTSD

Cognitive models posit that maladaptive trauma cognitions and appraisals, features of the trauma memory, and avoidance of trauma reminders or thought control strategies are key contributors in the development and maintenance of PTSD (Brewin et al., 1996; Brewin, 2001; Ehlers & Clark, 2000).

There are two leading cognitive models of PTSD in adults. The dual-representation model by Brewin and colleagues (1996) suggests that there are two ways of remembering traumatic experiences. Situationally accessible memories (SAM) are more primitive and retain sensory features of the traumatic event, such as sounds and smells. Conversely, the verbally accessible memory (VAM) system processes the same signals in more detail, with this information transferred to the long-term autobiographical memory if the information has been rehearsed sufficiently. The VAM system allows for the encoding of detail and context with the memory of the trauma and permits classification of a traumatic event as an incident that has occurred in the past. Memory of a traumatic event is stored in both the VAM and SAM systems in normal

circumstances. However, in PTSD, the VAM system does not make an adequate copy of the trauma-related information in the SAM system (e.g., because an individual avoids trauma reminders); consequently, information pertaining to the trauma is isolated in the SAM system. Environmental cues associated with the trauma can activate the contents of the SAM system and individuals will experience flashbacks and intrusive images with no corresponding VAM memories to prevent the fear response (Brewin & Holmes, 2003). Persistent PTSS can be explained by the use of cognitive and behavioural avoidance, as actively avoiding trauma-related thoughts and reminders of the event is hypothesised to prevent the elaboration of the trauma memory into the VAM system where it can be consciously retrieved (Brewin et al., 1996).

Evidence for this model in relation to childhood PTSD includes research by Azarian and colleagues (1999), which found that children exhibit ‘non-verbal’ memories post-trauma, including somatic and physiological reactions in response to specific reminders of the trauma, repetitive trauma-related play and nightmares. This lends support to the possibility that children can develop non-verbal memories similar to the situationally accessible memories theorised by Brewin and colleagues (1996). Whilst the dual representation theory provides an explanation of PTSD, in particular the mechanisms thought to underlie the recall of trauma memories, the model does not incorporate the role of pre-trauma risk factors, an individual’s schemas or changes in one’s view of themselves or the world following trauma (Dalgleish, 2004).

The cognitive model by Ehlers & Clark (2000) incorporates a dual representation format resembling that of Brewin et al. (1996), but emphasises the role of the trauma memory, maladaptive cognitive appraisals and coping strategies in the maintenance of PTSS (Meiser-Stedman, 2002). PTSD is thought to persist when an individual’s processing of the trauma memory leads to a sense of current danger or threat. The sense of threat is considered a result of a poorly elaborated trauma memory that is easily and involuntarily triggered by trauma-related cues, and dysfunctional negative appraisals of the trauma and/or its sequelae. Individuals may hold negative appraisals of the self (e.g., “it was my fault”), the world (e.g., “the world is dangerous”), or trauma symptoms (e.g., “my brain is damaged”). Maladaptive cognitive and behavioural coping strategies prevent changes in negative appraisals and trauma memory, contributing to the development and maintenance of PTSS (Ehlers & Clark, 2000).

Research suggests that the Ehlers & Clark (2000) adult model may be applicable to childhood PTSD. Negative appraisals, including appraisals of subjective threat and future harm, have been found to account for a significant proportion of the variance in PTSS severity in children following trauma exposure (Bryant et al., 2007; Ehlers et al., 2003; Meiser-Stedman, Dalgleish, Smith, Yule, & Glucksman, 2007; Salmon, Sinclair, & Bryant, 2007; Stallard & Smith, 2007). Previous studies have also found maladaptive behavioural and cognitive coping strategies, including thought suppression, avoidance of trauma-related stimuli and rumination to contribute to the maintenance of childhood PTSD (Ehlers et al., 2003; Meiser-Stedman, Dalgleish, Glucksman, Yule, & Smith, 2009; Stallard & Smith, 2007; Stallard, 2003; Udwin, Boyle, Yule, Bolton, & O’Ryan, 2000). Children with PTSD have also been found to have more sensory and disorganised trauma memories (Meiser-Stedman et al., 2007; Salmond et al., 2011), and longitudinal research suggests such post-trauma cognitive and behavioural factors are predictive of later child PTSS (Bryant et al., 2007; Meiser-Stedman et al., 2009). Overall, this model successfully describes not only the disturbances in autobiographical memory but also delineates the importance of post-trauma appraisals and emotions in the maintenance of PTSS.

1.2.3. Summary

These cognitive models inform our understanding of the processes involved in the development and maintenance of childhood PTSS and largely focus on the internal psychological processes (e.g., negative appraisals, memory processing) and behaviour of the trauma exposed individual. However, factors such as social support have been found to influence adjustment following trauma exposure. For example, humanitarian aid workers exposed to trauma who reported higher levels of social support were found to exhibit fewer PTSS than trauma exposed aid workers with lower levels of social support (Eriksson, Kemp, Gorsuch, Hoke, & Foy, 2001). Similarly, parents may represent an important avenue for support following child trauma exposure and could influence the duration and severity of PTSS in children. Parents may influence key post-trauma cognitive and behavioural processes (Scheering & Zeanah, 2001) through trauma-related discussions, expression of trauma-related appraisals, endorsement and modelling of coping strategies, and therefore influence child outcomes. The parent-child processes that may influence child outcomes following trauma exposure will be further explored in the following section.

1.3. Parental Factors Relating to Child PTSD

1.3.1. Trauma-related discussion

Parents of children exposed to a trauma may influence child adjustment through their engagement in and attitudes towards talking about the trauma. Parents may hold beliefs about the potential negative consequences of discussing the trauma or may avoid trauma-related discussions to prevent their child or themselves from experiencing further distress (Kazak et al., 1997; Salmon & Bryant, 2002; Timmons-Mitchell, Chandler-Holtz, & Semple, 1996). In turn, children may also avoid discussion of the trauma to avoid distressing their parent (Hopkins & King, 1994; Meiser-Stedman, Yule, Dalgleish, Smith, & Glucksman, 2006). This may negatively impact child adjustment as studies have found child perceptions of their parent as unavailable or unwilling to discuss the trauma to be associated with more PTSS (Garfin et al., 2014).

Communication between parents and children following trauma exposure has been found to play an important role in child PTSS. Elaborative parent-child discussions of the trauma may influence the coherency and completeness of the child's trauma memory, which is significant as disorganised or incomplete trauma memories are thought to contribute to the maintenance of PTSS (Ehlers & Clark, 2000). Elaborative discussions with the child about the traumatic experience that help children to develop a coherent, detailed trauma memory may also help children in resolving negative affect (Conroy & Salmon, 2006; Fivush, Hazzard, McDermott Sales, Sarfati, & Brown, 2003). Parent-child trauma-related discussions may also provide an opportunity for children to reappraise the trauma and have any misconceptions corrected by the parent (Fivush, 1998; Salmon & Bryant, 2002). Overall, elaborative parent-child discussions may help children to develop a coherent trauma memory and resolve any associated negative emotional content, thereby positively influencing child adjustment (Ehlers & Clark, 2000; Salmond et al., 2011).

1.3.2. Trauma related appraisals

In addition to providing assistance in scaffolding their child's trauma memory, the content of such parent-child trauma conversations is also likely to be important. Parent-child conversations may afford meaning to the child's experience, allowing it to be incorporated as part of the child's self-understanding, which may inform the child's expectations of the behaviour of others and their environment (Fivush, McDermott & Bohanek, 2008; Fivush & Nelson, 2006). Following child trauma, parents' ability to

influence children's understanding of significant events and experiences may create the opportunity to moderate children's negative appraisals and thereby influence their post-trauma distress. The content of parent-child discussions, in particular the advice parents provide to children, has been found to be associated with child PTSS. Following indirect exposure to the September 11th 2001 terrorist attacks, adolescents whose parents advocated the expression of emotions and offered positive reframing advice reported less distress (Gil-Rivas, Silver, Holman, McIntosh, & Poulin, 2007). Such parental advice may foster child perceptions of safety and security and discussions of the trauma may provide children with emotional support, which has been found to be associated with fewer child PTSS (e.g., Boksztzanin, 2008).

In line with this, parents' own trauma related appraisals may play a significant role in the support provided to children, and, in turn, child adjustment. Parents' event-related appraisals, particularly of child alienation and permanent change, have been found to be positively associated with child PTSS (Morris, Lee, & Delahanty, 2013). Moreover, parent appraisals of their child as vulnerable or helpless post-trauma may result in increased parental monitoring or child autonomy restriction due to fears that the child may be re-exposed to trauma (Scheering & Zeanah, 2001). More generally, such parental overprotectiveness is thought to contribute to the child's anxiety by obstructing the development of self-efficacy and heightening the child's perceptions of vulnerability to threat (Chorpita & Barlow, 1998; Wood, 2006). Indeed, parental overprotectiveness has been linked to increased child PTSS (Boksztzanin, 2008).

1.3.3. Coping strategies

The coping strategies used by children following trauma exposure may mediate their resilience. For example, higher levels of rumination, distraction and thought suppression have been found to predict higher post-trauma symptomatology in children eight months after an RTA (Stallard, Velleman, Langsford, & Baldwin, 2001). Parents may moderate their child's psychological recovery by influencing the coping strategies used by children following trauma exposure. Parents have been found to influence child coping following stressors including community violence, chronic medical conditions, and natural disasters (Barbarin, 1999; Kliewer & Lewis, 1995; Kliewer et al., 2006; Peterson & Palermo, 2004). Parents may model or encourage maladaptive avoidant coping strategies, such as thought suppression, discouragement of trauma discussions, and avoidance of trauma reminders, which may worsen child outcomes (Ehlers et al., 2003; Steil, Gundlach, Müller, & Schier, 2001). Previous research by Prinstein and

colleagues (1996) found child coping assistance from parents in the form of distraction to be associated with higher levels of child PTSD symptomatology following a natural disaster.

It must be noted that the majority of evidence that avoidant coping is associated with poorer child outcomes is derived from relatively low-risk, high-income contexts. Avoidant coping has been found to be associated with more positive child adjustment in high-risk, urban environments (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Duncan, 1996; Gonzales, Tein, Sandler, & Friedman, 2001). In these circumstances, the use of avoidant strategies may serve as a buffer for children exposed to chronic or uncontrollable stressors, allowing them to focus on more positive events (Duncan, 1996). In a similar vein, the limited research conducted with trauma-exposed adult refugees and asylum-seekers suggests that avoidant coping and suppression of emotion is associated with lower levels of psychological distress (Nickerson et al., 2016). Notably, this finding appears to be moderated by trauma type, as individuals exposed to torture in this study endorsed greater negative affect following the use of suppression. Parental advocacy of approach or avoidant coping strategies in high-risk, low income contexts may therefore influence child outcomes following trauma exposure. However, research regarding this parental response in non-Western contexts is extremely limited and future studies are needed.

1.3.4. Parental psychopathology

Several studies have found a link between parental and child PTSD (Alisic, Jongmans, van Wesel, & Kleber, 2011). Parental PTSD is thought to be linked to child adjustment as research has found parents with PTSD to be disengaged from children, act with increased hostility towards children, and expose children to dysregulated behaviours, cognitions and mood (Leen-Feldner et al., 2013). A recent review by Leen-Feldner et al. (2013) reported that, across the 105 studies reviewed, significant associations were found between parent and child PTSS, with stronger and more consistent associations found between maternal PTSD and child PTSD (Barakat et al., 1997; Boyer et al., 2010; Kazak et al., 2004; Leen-Feldner et al., 2013; Morris, Gabert-Quillen, & Delahanty, 2012). Parental PTSD was also found to be associated more generally with child psychopathology post-trauma, including general anxiety and depression symptoms and child behavioural problems (Leen-Feldner et al., 2013). Parental PTSD may influence the coping strategies they encourage their child to adopt and parental promotion of maladaptive coping strategies may potentially maintain child

PTSS. For example, as parents are often in charge of children's activities, parents with post-trauma adjustment difficulties may encourage avoidance behaviours not only through conversation but in the activities that they permit their children to participate in. This may have negative implications for child adjustment, and trauma-exposed children whose mothers were reportedly too distressed or felt unable to discuss the trauma were found to have higher levels of PTSS (Wilson, Lengua, Meltzoff, & Smith, 2010). Parents may also model PTSS, such as hyperarousal behaviours which could potentially influence child recovery.

Parents with PTSD may also be more likely to interact with their child in a more hostile way, as studies of parents with non-combat related PTSD have reported that their family environments have higher levels of conflict and hostility (Li et al., 2010). Parents with PTSD have been found to endorse more hostile parenting tactics (Chemtob & Carlson, 2004; Leen-Feldner, Feldner, Bunaciu, & Blumenthal, 2011) and such negative parenting behaviours have been linked to increased levels of child PTSD and internalising symptomatology (Valentino, Berkowitz, & Stover, 2010).

Both children and adults with PTSD have also been found to experience difficulties in forming and maintaining relationships (Charuvastra & Cloitre, 2007; Terr, 1991), thus parental PTSD may negatively impact the parent-child relationship. McFarlane (1987) found maternal PTSD to be significantly associated with disengagement from children, with this association also reported in military veterans who were parents (Davidson & Mellor, 2001; Gewirtz, Polusny, DeGarmo, Khaylis, & Erbes, 2010) and Holocaust survivors (Yehuda, Halligan, & Bierer, 2001). Engagement and interaction with a supportive, empathetic adult may help a child appraise and cope with a traumatic event (Salmon & Bryant, 2002). However, parents' own distress may cause them to overlook their child's post-trauma distress or symptoms and this disengagement may have serious implications for child PTSD outcomes (Abaied & Rudolph, 2011; Laor, Wolmer, & Cohen, 2001).

1.3.5. Summary

In summary, the available literature indicates that parents play a critical role in influencing the cognitive and behavioural processes central to the development and maintenance of child PTSS. Parents may moderate childhood PTSD at several points, including their encouragement of trauma-related discussions and facilitating their child's emotional processing of the trauma, as well as influencing their child's post-

trauma appraisals and coping strategies. An in-depth understanding of parental responses and experiences of providing support to children following trauma exposure may offer insights into child psychopathology and adjustment post-trauma.

1.4. The Neglect of Parental Experiences of Providing Support in Research on Child PTSD

Since the introduction of PTSD to the DSM-III in 1980 (American Psychiatric Association, 1980) and the recognition that children can develop PTSD in 1987 (American Psychiatric Association, 1987), the field of research examining childhood PTSD has grown rapidly. However, this literature has several limitations.

First, research has often focused on the association between parent and child PTSD (e.g., correlations of symptom scores, de Vries et al., 1999) which provides information about broad associations, but does not allow for insight into parents' responses or interactions with their child following trauma.

Second, although a number of studies have measured family functioning, or the family environment, in relation to child PTSD, as family functioning reflects a multitude of complex interactions within a family, this does not allow for insight into the relationship between parental strategies to support child recovery and child PTSD. Furthermore, a large proportion of research examining the relationship between parenting practices and child PTSD has investigated this association in samples where children have specific comorbid psychiatric disorders (e.g., eating disorders; Turnbull, Troop, & Treasure, 1997) or where parents inflicted the child's trauma (e.g., child maltreatment; Conners-Burrow, Johnson, & Whiteside-Mansell, 2009), which limits the generalisability of the findings to families where the child has not experienced mental health difficulties prior to the trauma or been subjected to parental abuse.

A third limitation is that the majority of studies that have examined the relationship between parenting and child PTSS have been conducted in low risk, Western samples (e.g., Kelley et al., 2010; Marsac, Donlon, Winston, & Kassam-Adams, 2013; Meiser-Stedman et al., 2006; Rosario, Salzinger, Feldman, & Ng-Mak, 2008). There are a few notable exceptions. Thabet et al. (2009) examined the role of parenting behaviours in childhood PTSD in children exposed to war violence in the Gaza Strip and perceived parenting support was found to be a protective factor in the development of childhood PTSD. The risk context in which parents attempt to support child adjustment may have implications for the strategies used by parents to support

child adjustment. For example, parental overprotection in low-risk contexts has been found to be associated with higher levels of child PTSD. However, in contexts of ongoing threat, parental perceptions of future threat may be realistic, rather than exaggerated (Eagle & Kaminer, 2013), and overprotective behaviours may serve to ensure children's physical safety. Therefore, additional research in high-risk contexts is needed to explore parental responses following child experiences of trauma. This may provide insight into adaptive parenting and child adjustment and further our understanding of whether standard, Western support mechanisms are appropriate or feasible.

A fourth limitation is the widespread use of non-validated psychopathology or parenting behaviour measures (e.g., Cobham & McDermott, 2014) which may influence the reported relationship between parenting and child PTSD. Finally, very little is known about how parents experience providing support for their children following child trauma exposure. Whilst previous research examining the association between parent and child PTSD provides insight into child PTSD in general, this does not allow for the exploration of how parents experience their child's trauma and their perspectives of providing post-trauma support, which is necessary to better assist parents in supporting child adjustment following trauma exposure. Qualitative research by Alisic et al. (2012) has explored the specific parenting support strategies reportedly used following child trauma to aid child adjustment; however, this limited focus does not allow for the investigation of other factors that may influence parent support strategies, such as treatment from health professionals or parents' perspectives of (need for) support.

1.5. Clinical Implications

Previous research has found that parental participation and engagement in their child's psychological treatment post-trauma has significant implications for child adjustment.

As child trauma exposure often directly involves the parent or results in significant parental post-trauma distress by proxy, parental engagement in child treatment may have implications for both parent and child adjustment. Parent engagement in child treatment may provide the opportunity for parents to reflect on their caregiving behaviours and their effectiveness, learn coping strategies they can also employ, and allow for the co-construction of the trauma narrative which may increase

the parent-child understanding of trauma and its impact on the family (Cobham et al., 2012; Cobham, McDermott, Haslam, & Sanders, 2016). As such, parental engagement in child psychological treatment following trauma exposure may positively influence child adjustment and recovery. Furthermore, parental involvement in their child's psychological treatment may influence drop-out rates as well as offer an opportunity for parents to facilitate child adjustment by helping children to practice the therapeutic coping strategies outside of treatment (Chowdhury & Pancha, 2011; Cobham et al., 2016; Schneider, Grilli, & Schneider, 2013). Finally, in a review of the treatment of more general child anxiety, Creswell and Cartwright-Hatton (2007) found that parental involvement in child anxiety treatment did provide an added, albeit small, benefit. However, evidence regarding the benefit of parental involvement in child treatment for anxiety is mixed as subsequent reviews have not consistently found parental involvement to be beneficial (Manassis et al., 2014; Reynolds, Wilson, Austin, & Hooper, 2012).

Overall, the literature suggests that parental engagement in child treatment may be helpful and lead to clinician gains. However, despite the benefits of parental engagement, very little is known about parents' views of child treatment following trauma exposure and their experiences of accessing such support. For example, the recent qualitative study by Dittmann & Jensen (2014) exclusively examined adolescent perceptions of trauma-focused cognitive behavioural therapy (TF-CBT) and did not incorporate the views of parents. Additionally, few children with PTSD access treatment post-trauma (Cobham et al., 2016; de Vries et al., 1999; Trupin, Tarico, Low, Jemelka, & McClellan, 1993) and parents are likely to play an influential role in this process. Therefore, a better understanding of parents' experiences of providing support to their child and their perceptions of formal treatment following trauma exposure could inform guidance provided to parents to limit child post-traumatic distress. An in-depth understanding of parents' experiences of accessing and engaging in their child's treatment could identify potential avenues for future research to foster child engagement in and benefit from psychological treatment when required.

1.6. Aims of this Thesis

To date, parental experiences of providing support to their children following child trauma exposure have received limited research attention. Moreover, of the small number of studies conducted, few have examined parental post-trauma responses in high-risk, non-Western contexts. The aim of this thesis is therefore to explore the

experiences of and challenges faced by parents in caring for their child post-trauma in both a comparatively low-risk, Western and high-risk, non-Western environments.

1.7. Outline of Papers

The five papers included in this thesis investigate the role of parental behaviours and responses in childhood PTSD with the intention of addressing gaps in the literature and advancing our understanding of how parents experience providing support to their children following a traumatic event. An overview of the specific aims and research questions of each paper is provided in the following section.

1.7.1. Paper 1: The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review

Previous research has reported the association between post-trauma parenting behaviours and childhood PTSS; however, studies have yielded mixed findings. Paper 1 reports on a systematic review and meta-analysis of fourteen studies examining the relationship between parental post-trauma behaviours and child PTSD. The study also examined several potential moderators that have been found to increase the risk of childhood PTSD which may moderate the parenting-PTSD association.

1.7.2. Paper 2: Parental responses to child experiences of trauma following presentation at Emergency Departments: A qualitative study

A core finding of Paper 1 was that post-trauma parenting behaviours have a small, yet highly significant, influence on child adjustment. Parental overprotection was found to be consistently associated with child PTSD, while the relationship between child PTSD and parental warmth and support was less consistent. However, little is known about how parents experience their child's trauma and their perspectives on providing support to their child post-trauma. Paper 2 aimed to address this using a qualitative, semi-structured interview design to explore parents' views and experiences of caring for their child following child trauma exposure and attendance at one of two hospital Emergency Departments (EDs) in England. Parents' perspectives on the formal support available to families post-trauma was also investigated. A qualitative framework was chosen for this study as this allowed for the collection of participants views in their own words, rather than confining their report of their experiences to categories or terms pre-determined by others, which is often the case with quantitative methodologies (Sofaer, 1999). Given the exploratory nature of this study, the use of

semi-structured qualitative interviews allowed for the collection of rich, detailed data which was analysed using thematic analysis (Braun & Clarke, 2006).

1.7.3. Paper 3: Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services

Paper 2 provided insight into the experiences and challenges faced by parents following child exposure to single incident trauma and ED attendance. Parents reported significant concerns for their children's physical wellbeing post-trauma and considered their children to be particularly vulnerable to re-experiencing serious illness or injury. Consistent with this, parental strategies used to support child coping often addressed protecting their children from future harm. Parents' appraisals of (poor) care from EDs also contributed to their anxiety for their child's wellbeing. Although children whose parents participated in Paper 2 were exposed to a range of traumatic events, no parent in Paper 2 reported seeking formal psychological treatment for their child post-trauma. Therefore, the views of the parents in this study may not be generalisable to the experiences of parents in providing support to children experiencing clinically significant levels of post-trauma distress.

The objective of Paper 3 was to address this gap and explore the views of parents in providing support to their child following trauma exposure in cases where the child experienced clinically significant levels of post-trauma distress and were referred for psychological treatment. Paper 3 examines parents' post-trauma responses; concerns about their child; their experiences of providing support to their child; perceptions of their child's psychological treatment and suggestions about improvements to the formal support available to children and their families post-trauma.

1.7.4. Paper 4: The Parental Responses to Child Experiences of Trauma Inventory (PRCET): Development and validation

As highlighted in Paper 1, a number of previous studies have used questionnaires and interview schedules that have not been specifically designed to assess post-trauma parenting responses or measures have not been validated (e.g., Cobham & McDermott, 2014). Given the influential role of parenting practices on child adjustment, there is a need for an empirically validated assessment of post-trauma parenting behaviours and appraisals following child trauma exposure. This would have potential benefits in both research and clinical settings. The measure would provide a

tool for identifying potentially maladaptive parental responses and behaviours that contribute to the development and maintenance of child PTSS. The measure could also be used to screen for post-trauma parenting practices to identify areas of focus for treatment. Therefore, the primary aim of Paper 4 was to examine whether the Parental Responses to Child Experiences of Trauma Inventory (PRCET) is a reliable and valid measure of parenting behaviours post-trauma. Furthermore, as the results of Papers 2 and 3 provide insight into parental responses following child trauma exposure, a secondary aim of this study was to examine further the relationship between parent appraisals and behaviours and child PTSS on a larger scale.

1.7.5. Paper 5: Caregiver responses to child post-traumatic distress: A qualitative study in a high risk context in South Africa

As the majority of research exploring the relationship between parent post-trauma behaviours and child PTSD has been conducted in relatively low-risk, Western context, the data collected regarding parents' experiences of providing support to their child post-trauma may not be generalisable to other environments. Few studies have examined post-trauma parenting behaviours in non-Western communities (e.g., Punamäki, Qouta, & El-Sarraj, 2001; Thabet et al., 2009), and fewer still have explored parents' experiences of providing support for a child following trauma exposure in such high-risk communities. Therefore, Paper 5 explored the views of parents of children exposed to trauma in the peri-urban settlement of Khayelitsha, South Africa.

Khayelitsha is a low-income community with extremely high rates of child trauma exposure and prolific community violence. Low rates of referrals to mental health services have been found in Khayelitsha and the surrounding areas (Gevers & Abrahams, 2014), therefore parents are likely to be the principal source of support for children post-trauma. Paper 5 aimed to explore parents' understanding of their child's post-trauma distress; parents' experiences of providing support to their child; and parents' perceptions of (need for) formal support and the barriers to accessing such support.

1.8. Summary

A significant number of children will develop PTSD following trauma exposure, which is associated with a range of long-term negative outcomes. Whilst research examining childhood PTSD has made significant progress in recent years, parental experiences of providing support for children post-trauma has been largely overlooked.

Many research studies have examined the association between parent and child PTSS. Whilst this provides insight into the role of parental post-trauma adjustment in child PTSD more generally, this does not allow for an in-depth understanding of how parents respond to and experience their child's trauma and their perceptions of providing support for their child post-trauma. Evidence suggests that parental post-trauma behaviours and appraisals can contribute towards the development and maintenance of childhood PTSD. A better understanding of parents' experiences of parenting a child post-trauma may inform clinical practice and contribute to the development of meaningful and acceptable advice and support offered to families after child trauma exposure. The aim of these five papers is to advance understanding of the strategies used by parents to support children following trauma exposure and explore the parental perspective of this experience. In particular, these papers aim to examine the relationship between post-trauma parenting behaviours and child PTSD; assess a measure of post-trauma parent behaviours and cognitions to enable reliable future assessment of parental responses; and to investigate the experiences of and challenges faced by parents in providing support to children following single incident trauma, in cases where children are experiencing clinically significant levels of post-trauma distress, as well as in a high-risk, non-Western context. A final concluding chapter will provide a discussion of the findings and implications for clinical practice.

Chapter 2 Paper 1: The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review

Manuscript under review for publication at *Clinical Psychology Review*

Williamson, V., Creswell, C., Fearon, P., Hiller, R., Walker, J., Halligan S. (in submission). The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review. *Clinical Psychology Review*.

Studies investigating the relationship between childhood post-traumatic stress disorder (PTSD) and parenting behaviours have produced mixed findings. To provide insight into the role of parenting in childhood PTSD, Paper 1 describes a systematic review and meta-analysis of fourteen studies that examined the association between parenting practices and child PTSD symptoms.

Statement of Authorship

This declaration concerns the article entitled:									
<i>The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review</i>									
Publication status (tick one)									
Draft manuscript	<input type="checkbox"/>	Submitted	<input type="checkbox"/>	In review	<input checked="" type="checkbox"/>	Accepted	<input type="checkbox"/>	Published	<input type="checkbox"/>
Publications details (reference)	Williamson, V., Creswell, C., Fearon, P., Hiller, R., Walker, J., Halligan S. (2016). <i>The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review</i> . Submitted for publication.								
Candidate's contribution to the paper (detailed, and also given as a percentage)	<p>The candidate contributed to/ considerably contributed to/predominantly executed the...</p> <p>Victoria Williamson made considerable contributions to the conception of the study as well as the methodological design (70%). The experimental work, including the acquisition, analysis and interpretation of data was predominantly conducted by Victoria Williamson (90%). The presentation of the data in journal format was predominantly executed by Victoria Williamson (95%).</p>								
Statement from Candidate	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature.								
Signed						Date			

The Role of Parenting Behaviours in Childhood Post-Traumatic
Stress Disorder: A Meta-Analysis and Systematic Review

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Abstract

Studies that have examined the association between parenting behaviours and childhood post-traumatic stress disorder (PTSD) have yielded mixed findings. To clarify the role of parenting in childhood PTSD we conducted a systematic review and meta-analysis of 14 studies that investigated the association between parenting and youth PTSD symptoms (total $N = 4010$). Negative parenting behaviours (e.g., overprotection, hostility) accounted for 5.3% of the variance in childhood PTSD symptoms. Positive parenting behaviours (e.g., warmth, support) account for 2.0% of variance. The negative and positive parenting and child PTSD symptom associations did not statistically differ in magnitude. Moderator analyses indicated that methodological factors and trauma variables may affect the association between parenting and child PTSD. Most studies relied upon questionnaire measures of general parenting style, and studies were predominantly cross-sectional with weaker evidence found in longitudinal studies. Given the small number of high quality studies available, only provisional recommendations about the role of parenting in childhood PTSD are made.

Keywords: PTSD, child, adolescent, parenting, trauma, meta-analysis

Childhood trauma exposure is associated with a range of adverse psychological outcomes, including posttraumatic stress disorder (PTSD), trauma-related specific phobias and other adjustment problems (de Vries et al., 1999; Keppel-Benson, Ollendick, & Benson, 2002; Meiser-Stedman, Yule, Smith, Glucksman, & Dalgleish, 2005; Perrin, Smith, & Yule, 2000; Stallard, Velleman, & Baldwin, 2001). PTSD has been linked to a range of traumatic events in childhood, including relatively common events such as motor vehicle accidents (de Vries et al., 1999; Stallard, Velleman, & Baldwin, 1998), with an estimated 16% of trauma exposed youth developing PTSD as a consequence (Alisic et al., 2014).

The potential role of social support following trauma

Research has consistently identified social support as a predictor of PTSD following trauma, both in samples of adults (Brewin, Andrews, & Valentine, 2000) and of young people (Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). With respect to the latter, meta-analysis has found that social domains of low perceived social support (estimated population effect 0.33), poor family functioning (0.46), and social withdrawal (0.38) are each significant predictors of PTSD symptoms with moderate to large effect sizes, although for each the number of studies was relatively small (maximum $k = 7$; Trickey et al., 2012). More broadly, there is consistent evidence of social influences on child psychological outcomes post-trauma in long-term follow-up studies across a range of trauma types (e.g., Berkowitz, Stover, & Marans, 2011; Kliewer et al., 2004; Udwin, Boyle, Yule, Bolton, & O’Ryan, 2000).

Recent research by Dixon (2016) asked young people aged 6-13 years to report on their perceptions of support approximately 1-month post-trauma and found that the majority identified a parent as their main source of support, suggesting that parental behaviour in particular should be a focus of research in this area. This is consistent with a wider literature which suggests that parental behaviours may be influential in the development and maintenance of child anxiety (e.g., McLeod, Weisz, & Wood, 2007; Wood, McLeod, Sigman, Hwang, & Chu, 2003).

Conceptualizations of parenting behaviour in the context of child trauma

Several researchers have considered the ways in which parents may alleviate or exacerbate child post-traumatic distress (Cobham, McDermott, Haslam, & Sanders, 2016; Scheeringa & Zeanah, 2001). Theoretically, models of PTSD highlight key domains that are likely to be relevant, particularly the way in which the trauma is

encoded in memory and subsequently updated, the tendency for negative appraisals of the trauma and its sequelae, and the use of avoidant or otherwise maladaptive coping behaviours (Ehlers & Clark, 2000). Research supports the importance of these aspects of post-trauma responding to the development of PTSD in young people (e.g., Ehlers, Mayou, & Bryant, 2003; Meiser-Stedman, 2002; Stallard & Smith, 2007), and trauma-focused cognitive-behaviour therapy (TF-CBT) tends to target each element, including in child focused interventions (Cohen, Mannarino, Berliner, & Deblinger, 2000; Smith et al., 2013). Importantly, parent-child interactions can influence the way in which young people remember and appraise events, and parents are influential in determining child engagement with trauma-related material (Cobham et al., 2016) and may model or encourage certain coping styles (Williamson, Creswell, Butler, Christie, & Halligan, 2016). Thus, there are clear potential mechanisms via which parents may input into child posttraumatic adjustment. In terms of specific aspects of parental behaviour, to date the focus in the field has been on dimensions studied in relation to child anxiety, including parental overprotection, positive parenting and parental warmth, and also hostile or coercive parental behaviours.

Parental overprotection

Overprotection, including excessive involvement in a child's activities and lack of autonomy granting, is assumed to obstruct the development of self-efficacy and increase a child's perceived vulnerability to threat (Wood et al., 2003). In a meta-analysis of studies that examined parenting domains in relation to child anxiety, parental overprotection emerged as having a moderate effect (effect size 0.25), accounting for approximately 6% of the variance in childhood anxiety (McLeod et al., 2007). Such observations are particularly relevant to child PTSD, as child trauma exposure has been linked with increases in parent monitoring behaviour (Bokszczanin, 2008; Henry, Tolan, & Gorman-Smith, 2004). Parents may be prone to engaging in more restrictive, less positive behaviours in this context, possibly due to fears that the child may be traumatised again (Scheeringa & Zeanah, 2001; Williamson, Creswell, Butler, et al., 2016; Williamson, Butler, Tomlinson et al., in submission). Theoretically, overprotection is likely to be a problematic parental response to child trauma, as it may limit the child's opportunities to engage with trauma-related material or activities, which may act as a barrier to recovery. Indeed, a number of studies have found that higher levels of overprotection are associated with increased child PTSS (Bokszczanin, 2008; Henry et al., 2004).

Parental support

Parental support, including positive involvement in the child's activities and expressions of affection and warmth towards the child, may facilitate child coping post-trauma by providing a sense of security, coaching (e.g., providing direct instructions or recommendations) and modelling adaptive coping (e.g., Marsac, Donlon, Winston, & Kassam-Adams, 2013). Parents who are supportive, available and accepting are likely to provide additional opportunities for children to discuss and address trauma-related distress, and positive parental responses may reduce the likelihood that the child appraises the trauma or their reactions to it in a highly negative way. The impact of positive parental support has been examined in relation to child coping in response to several stressors including natural disasters, community violence and physical injury. However, evidence for a negative relationship between parental support and child PTSD symptoms (PTSS) is mixed. For example, Punamäki et al. (2001) found a negative association between paternal warmth and child PTSD, indicating that more paternal warmth is associated with lower levels of child PTSD. However, this study also found a positive association between maternal warmth and child PTSD. Therefore, the role of parental support in child PTSS is uncertain.

Hostile parenting behaviour

Finally, hostile parenting, including criticism or aggression towards the child (Morris et al., 2002) may impair a child's emotion regulation by increasing their sensitivity to anxiety (Gottman, Katz, & Hooven, 1997). Negative or critical parental responses may also reinforce child negative trauma-related appraisals and thereby influence PTSS directly. Previous research has found adult patients with PTSD whose relatives score highly on scales of expressed emotion (with high levels of criticism) have poorer treatment outcomes than patients whose families exhibit low expressed emotion (Tarrier, Sommerfield, & Pilgrim, 1999). Nonetheless, the research examining the relationship between parental behaviours and child PTSD has yielded mixed findings (Gewirtz, Forgatch, & Wieling, 2008; Marsac et al., 2013; Punamäki, Qouta, & El-Sarraj, 2001; Thabet, Ibraheem, Shivram, Van Millingen & Vostanis, 2009). For example, whereas some studies find a significant positive relationship between higher levels of parental hostility and greater child PTSS (Kelley et al., 2010; Valentino, Berkowitz, & Stover, 2010), others report non-significant (Rosario, Salzinger, Feldman, & Ng-Mak, 2008) or negative associations (Punamäki et al., 2001). As such, the potential for parents to influence child post-trauma adjustment is unclear.

Purpose of the current review

In sum, several parenting domains have been considered in relation to child PTSD, both theoretically and through empirical investigation. However, to date, the empirical evidence base has yielded mixed finding. To address this, we present a meta-analytic review of studies examining the association between parenting behaviours and child posttraumatic stress symptoms, to allow conclusions derived from the evidence base as a whole. For the purpose of this analysis, parenting was examined as a function of two polar dimensions with positive parenting practices (e.g., warmth, parental support) at one end of the continuum and negative parenting practices (e.g., overprotection, hostility) at the other, consistent with previous studies of child anxiety (e.g., McLeod et al., 2007). We also considered several potential moderators of effects. First, younger age and female sex have been found to increase the risk of developing PTSD (see Foy, Madvig, Pynoos, & Camilleri, 1996; Trickey et al., 2012). Second, the type of traumatic event (intended versus unintended event; collective versus individual trauma exposure) moderated ESs of risk for PTSD development in previous meta-analyses (see Brewin et al., 2000; Trickey et al., 2012). Intended trauma (e.g., physical assault) has been found to be a significant risk factor for childhood PTSD, compared to unintentional trauma (Trickey et al., 2012), potentially as a result of greater cognitive misappraisal (Meiser-Stedman, Dagleish, Gluckman & Yule, 2009). Whereas a collectively experienced trauma, such as a natural disaster, is thought to be more easily processed and have a less pathogenic effect than an individually experienced trauma (Kessler et al., 2005; Maercker et al., 2008; Maercker & Horn, 2013). Third, methodological factors, including method of assessment of PTSD (interview versus questionnaire; child versus parent informant) and of parenting (questionnaire, interview or observation), and study design (cross-section or longitudinal) have been found to influence the magnitude of associations found between the parenting and child psychopathology (McLeod et al., 2007). We examined each of these potential moderators in the present analysis.

Method

We conducted a computer based search of the psychological and medical electronic literature databases, including Medline, Embase, PsychInfo, PILOTS, PsychNet, and Web of Science. The search dated from 1980 (when the DSM first defined PTSD) to December 2014. The search terms were ‘post-trauma*’, OR ‘posttrauma*’, OR ‘PTSD’, OR ‘PTSS’, OR ‘trauma*’, OR ‘injur*’, AND ‘parent’

(including all search engine variants) OR ‘famil*’, OR ‘behav*’, AND ‘child’ (including all search engine variants) OR ‘adolescent’ (including all search engine variants). In addition, we contacted key authors to request details of any further published or unpublished studies and manually searched reference sections of relevant review papers (e.g., Foy et al., 1996; Gewitz, Forgatch, & Wieling, 2008; Morris, Gabert-Quillen, & Delahanty, 2012; Trickey et al., 2012), book chapters, empirical articles and issues of journals (e.g., *Journal of Traumatic Stress*) to identify any studies that had not yet been included in the literature databases. A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow chart (Figure 2.1) describes the systematic and meta-analytic review process (Moher, Liberati, Tetzlaff, & Altman, 2009). Where we excluded studies based on more than one criterion, the primary exclusion criterion is shown.

Eligibility Criteria

To be considered for inclusion, studies had to include the following: a direct measure of parenting in relation to a specific child; a standardised measure of child PTSS (i.e., self-report); statistical testing of the association between parenting and child PTSS; and a sample of child participants with mean age below 19 years.

Articles were excluded on the following grounds:

- a) The article was a review that did not offer new data or only presented qualitative analysis;
- b) The study sample was selected because the participants were experiencing a specific comorbid primary psychiatric disorder (e.g., substance abuse, eating disorders, etc.) which may limit the generalisability of results;
- c) Single case studies;
- d) Studies that examined child trauma where the parent was directly responsible or inflicted the trauma (e.g., child abuse) due to the numerous confounding variables involved in such samples;
- e) Studies where the sample was not exposed to a traumatic event meeting DSM diagnostic criteria for PTSD (American Psychiatric Association, 2013).
- f) Studies not written in English. Non-English papers were documented, but were not included in the review due to insufficient resources and facilities for translation.

Parenting was defined as patterns of parenting practices or behaviours towards the child (e.g., hostility, autonomy restriction), as reported by observers, children, or parents. As such, we did not include studies that exclusively measured family functioning or the family environment as these reflect a series of complex interactions within a family rather than direct parenting practices. We use the term ‘child’ throughout this review to describe both children and adolescents under the age of 19 years.

Figure 2.1 presents a PRISMA flow chart for the study. Two authors (VW & JW) independently conducted searches for relevant literature, screened articles and extracted data. There was excellent inter-rater reliability (intra-class correlation=.78) and any disagreement on the eligibility of a study was discussed with the third author (RH) and a consensus was reached. One eligible paper was ultimately not included in this review as the corresponding author was unable to provide essential information regarding the trauma exposure of the sample that was required to calculate a reliable effect size of the association between parenting and child PTSS (Khamis, 2005). On three occasions, the same data were reported in more than one article. In such cases, results from the most comprehensive article were used. Fourteen studies met the inclusion criteria for this review. Sample characteristics, methods of assessment and study effect sizes are shown in Table 2.1.

Methodological quality and the quality of the reported data relevant to the research question (e.g., the association between parenting behaviours and child PTSS) was independently assessed by two authors (VW and JW) for all included studies using a nine-item checklist adapted from Kmet et al. (2004). Adapted items on the checklist include an assessment of whether: the study design was evident and appropriate; the outcome measure(s) of parenting behaviour and PTSS were well defined; and the analytic methods used were described and appropriate (Appendix 1). Studies were scored depending on the extent to which the specific criteria were met (‘yes’= 2, ‘partial’=1, ‘no’= 0) and we calculated a summary score for each study by summing the total score across all items of the scale (total possible score = 18; Table 2.1). There was strong inter-rater reliability (intra-class correlation = .843) and all disagreements regarding quality scores were resolved between the two authors in a consensus meeting. Several studies received low quality scores (e.g., Le Brocque et al., 2010) given the information reported in the published article; however, additional data was obtained

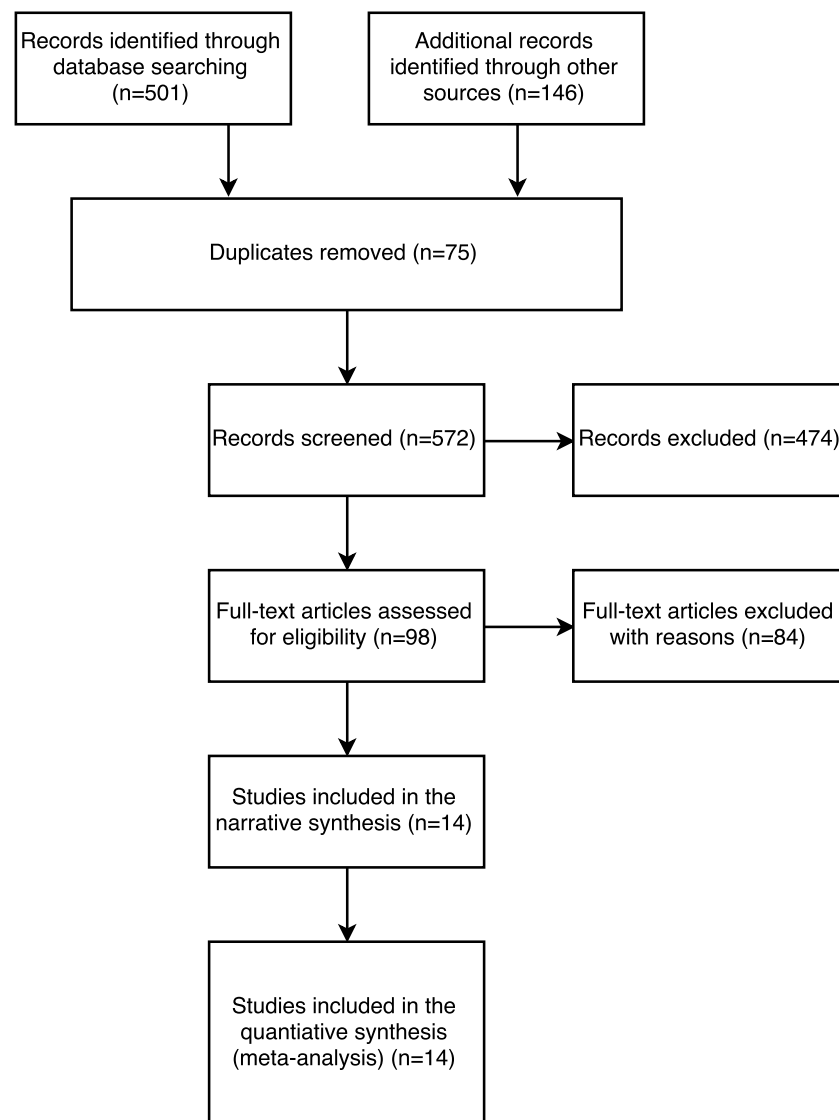


Figure 2.1. PRISMA Flow Chart. Reasons for exclusion were: no parenting behaviour(s) assessed (n=49); parent perpetrators of abuse (n=7); sample selected due to specific comorbid primary psychiatric disorder (n=1); did not include a post-trauma measure of parenting behaviour(s) (n=2); article not an empirical study (n=16); association between parenting behaviours and child PTSD not tested significantly (n=2); did not assess child PTSD (n=1); longitudinal study excluded in favour of another paper with same sample (n=3); sample mean greater than 19 years (n=1); exposure to trauma did not meet DSM criteria (n=1); studies excluded where insufficient data was provided to calculate effect sizes and information could not be obtained from the author (n=1).

from authors, improving the overall quality of the study, warranting the study's inclusion in this analysis.

Data Extraction

We extracted the following data from each study: (a) background and demographic information including study location, design, whether it was part of a larger study, family status, parents' years of education, ethnicity, socio-economic status; (b) number of participants; (c) child age range and mean age; (d) for longitudinal studies, assessment time points and retention rates; (e) child gender; (f) parent gender; (g) type of parenting behaviour; (h) how the parenting behaviour was measured (i.e., questionnaire, interview); (i) parenting behaviour measure used; (j) parenting behaviour informant (i.e., child, parent); (k) child trauma type and severity; (l) how child PTSS were measured; (m) what child PTSS measure was used; (n) informant for child PTSS; (o) findings; (p) effect sizes and (q) any ethical issues or sources of bias. For more information, see Table 2.1. Two authors (VW and JW) independently extracted and assessed data. Any discrepancies were checked and successfully resolved.

Study Sample

The 14 included studies dated from 1996-2014 and involved 4010 participants. Children were aged between 9-16 years ($M=12.3$, $SD = 1.77$) and 23 effect sizes were included in the meta-analysis. In one case where the mean age of the child was not reported and the information could not be obtained from the study authors, the median age of the sample was calculated from the information provided in the article and used as a proxy for the mean. Eight of the included studies reported the ethnic composition of their sample; four studies consisted mostly of Caucasian participants and four studies consisted largely of non-Caucasian participants (e.g., African American, Hispanic, Asian). Three studies reported the percentage of intact families: Bokszczanin (2008) report 88% family intactness; Le Brocque and colleagues reported 74% family intactness (Le Brocque, Hendrikz, & Kenardy, 2010); and Morris (2010) reported 43% family intactness. Child PTSS were assessed by questionnaire measures in 11 studies and by interview measures in 3 studies.

Parenting behaviour was measured using questionnaire measures in 13 studies, with four studies providing parent-report, 6 studies providing child-report, and 4 studies providing both parent and child report of parenting behaviour. Where both mother and father report of parenting was available, we used an average of these in order for each

study to contribute only one effect size (ES) to the analysis. For longitudinal studies where multiple ESs measuring the association of parenting behaviour and child PTSS at several time points were available, we used the ES provided for the first available time point in the analysis (see Table 2.1). As previous studies have shown poor agreement of parent and child reports of child Acute Stress Disorder (ASD) symptoms (Daviss et al., 2000; Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007) and, compared to parent reports, older children identify significantly more PTSS by self-report (Scheeringa, Wright, Hunt, Charles & Zeanah, 2006), we used child self-report ratings of PTSS in the analysis for the two cases where both parent and child report were available. If both continuous (PTSD symptom severity) and categorical (PTSD diagnosis) data were available for a given study, we used the ES for PTSD symptom severity due to the statistical compatibility of continuous variables in predictive research.

Meta-Analytic Method

Meta-analyses were conducted using RStudio (version 0.98.507) and the Metafor package (Viechtbauer, 2010), and produced figures using STATA (Sterne, Bradburn & Egger, 2008). We used Pearson's product-moment correlation (r) as the effect size for the association of parenting and child PTSS as r is more readily interpretable in comparison to other ESs (Field, 2001; Rosenthal, 1994, 1995). ES values were calculated for each association of interest within each study, with separate ES values for each parenting behaviour. Cohen's (1988) guidelines were used to interpret the effect sizes (small effect $r=.10$, moderate effect $r=.30$, large effect $r=.50$).

Two studies only reported the absence of statistical significance (e.g., "the findings were not statistically significant"). As these cases represent parenting-child PTSS effects that did not reach statistical significance, excluding these studies could potentially result in an upwardly biased meta-analysis estimate (Davis, Mengersen, Bennett, & Mazerolle, 2014). To avoid such artificial inflation of ES estimates, when results from a study were reported as not significant and F or t values were not available, a random number between the range of critical values of F or t at $p=.05$ was selected using a random number generator to calculate an estimate of ES (Cameron & Pierce, 1994; Enders, 2010; Murayama, Miyatsu, Buchli, & Storm, 2014).

We applied the Hedges-Olkin approach (Hedges & Olkin, 1985; Hedges & Vevea, 1998) using the Fisher transformed correlation coefficients with the results

Table 2.1

Included Studies, Methods of Assessment, Sample Characteristics, Quality Ratings and Study ES

Study	<i>n</i>	Age (SD)	Mothers (%)	Parenting Informant	PTSS Informant	Parenting behaviour	Design	Trauma type	Males (%)	ES <i>M(var)</i>	Qual- ity
Bokszczanin, 2008	503	16.0 (2.5)	n/a	Child	Child	Support, Overprotection ^a	Cross- Sectional	Group	40.0	0.34 (.002)	16
Cobham & Mcdermott, 2014	776	9.7 (1.2)	n/a	Parent	Child	Overprotection	Cross- Sectional	Group	45.1	0.19 (.001)	15 ^c
Kelley et al., 2010	381	12.0 (2.0)	99.5	Parent	Child	Hostility	Longitudinal	Group	n/a	0.16 (.003)	14
Keppel-Benson et al., 2002	50	11.6 (3.2)	88.0	Child ^d	Both ^d	Overprotection	Cross- sectional	Individual	58.0	0.24 (.021)	14
Le Brocque et al., 2010	175	10.7 (2.3)	84.0	Parent	Child	Support, Overprotection	Longitudinal	Individual	64.0	0.00 (.006)	10 ^c
Marsac et al., 2013	82	12.1 (2.7)	82.0	Both	Child	Support	Longitudinal ^e	Individual	70.0	0.01 (.013)	16
Meiser-Stedman et al., 2006	33	13.8 (1.9)	97.0	Parent	Child	Overprotection ^a	Longitudinal ^e	Individual	60.6	0.31 (.033)	16 ^c
Morris, 2010	35	11.7 (2.6)	94.0	Both	Child	Overprotection, Support	Cross- sectional	Individual	60.0	0.39 (.031)	16

Punamaki et al., 2001	86	14.0 (0.8)	100	Child	Child	Support, Hostility	Longitudinal ^e	Group	48.8	0.02 (.012)	14
Rosario et al., 2008	613	11.8 (0.7)	n/a	Both	Child ^d	Support, Hostility	Longitudinal ^e	Individual	50.2	0.10 (.002)	13
Thabet et al., 2009	412	13.7 (1.1)	n/a	Child	Child ^d	Support	Cross- sectional	Group	48.5	0.34 (.002)	17
Tillery et al., 2014	205	13.6 (2.3)	n/a	Child	Child	Support, Overprotection	Cross- sectional	Individual	51.2	0.23 (.005)	17
Valentino et al., 2010	91	12.1 (2.9)	89	Both	Both	Support, Hostility	Cross- sectional	Individual	46.2	0.15 (.011)	17 ^c
Vernberg et al., 1996	568	9.5 ^b	n/a	Child	Child	Support	Cross- sectional	Group	45.0	0.26 (.002)	15

Note. Age is reported in mean years, standard deviation reported in brackets. Mothers (%) = percentage of mothers that participated in the study. Males % = percentage of male children that participated in the study. ES = effect size. Quality = methodological quality score (range = 0-18). a = study also examined poor family functioning, b = median age, c = author was contacted and provided further information, d = studies using an interview measure versus a questionnaire assessment, e = longitudinal effects used in the analysis.

reported in Pearson's r following a back-conversion. To compare the ESs of negative parenting behaviours (e.g., hostility) to the ESs of positive parenting behaviours (e.g., support), we multiplied ESs by -1 when necessary to ensure that higher scores were indicative of more negative parenting behaviours. Therefore, for comparisons involving support, positive correlations signify that more of the parenting behaviour was associated with fewer child PTSD symptoms.

We chose random-effects modelling with restricted maximum likelihood *a priori* as this method allows the meta-analytic results to be generalised to a wider population of studies (Field, 2001; Hedges & Vevea, 1998; Huedo-Medina, Sánchez-Meca, Marín-Martínez, & Botella, 2006)¹. We conducted three separate meta-analyses to examine the association of parenting behaviours and child PTSS. First, we examined the association of overall parenting and child PTSS. For this analysis, one effect size was generated for each study by averaging across all of the childhood PTSD and parenting behaviour comparisons for the study (McLeod et al., 2007a). Second, we investigated the association between negative parenting behaviours (overprotection, hostility) and child PTSS. All studies that examined negative parenting behaviours in relation to child PTSS contributed one ES to the analysis, created by averaging across all of the negative parenting behaviour and child PTSS comparisons for the study. Third, we examined the association of positive parenting behaviours (i.e., support) and child PTSS. All studies that measured positive parenting behaviours in relation to child PTSS contributed one effect size to the analysis as per above. The Chi^2 test and I^2 statistic were used to assess heterogeneity.

In addition to estimating meta-analytic effect sizes for both positive and negative parenting, we also explored whether these differed in magnitude. The fact that the same studies could contribute to the meta-analysis of negative parenting and the meta-analysis of positive parenting was taken account of. Direct statistical comparisons between dependent meta-analytic effect sizes (in this case due to the fact that the multiple outcomes come from the same studies, and are therefore correlated) present problems when primary studies do not report the inter-correlations between them (as in

¹ We did not conduct a Hartung-Knapp adjustment as part of our original analysis. We ran a sensitivity analysis to examine the possible implications of this. Applying the adjustment did not alter the findings and results were essentially identical to the original analyses.

this case, and most meta-analyses). Therefore, to examine conservatively the differences between the negative and positive parenting dimensions, the 85% confidence intervals for the point estimates of the combined ESs of positive and negative parenting were computed and compared for overlap (Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003; Groh, Roisman, van IJzendoorn, Bakermans-Kranenburg, & Fearon, 2012; Kawabata, Alink, Tseng, van IJzendoorn, & Crick, 2011; Laursen et al., 2012; Murayama et al., 2014; Payton, Greenstone, & Schenker, 2003); with overlap of the 85% confidence intervals indicative of a non-significant difference between the combined ESs. Furthermore, recent work has shown that a three-level hierarchical linear modelling approach, in which outcomes are treated as nested within studies, reliably yields unbiased ES estimates and standard errors, and can therefore be used to compare dependent meta-analytic ESs when correlation estimates are missing (Noortgate, López-López, Marín-Martínez, & Sánchez-Meca, 2015). Therefore, this approach was used to confirm the impression gained from the 85% confidence interval comparison approach.

Sensitivity analyses were conducted to determine whether the results were impacted by the approach to calculating ES estimates, in terms of: a) using the first available time point to calculate an ES in longitudinal studies; and b) using an average of mother and father report of parenting where both were available.

In order to determine whether there was any significant publication bias, we first created funnel and forest plots to provide a visual representation of the data. We then conducted rank correlation tests (Begg & Mazumdar, 1994) and regression tests (Egger, Smith, Schneider, & Minder, 1997) to determine whether or not there was evidence of publication bias. Finally, we used Duval and Tweedie's trim and fill procedure to determine an estimate of the ES after accounting for publication bias (Duval & Tweedie, 2000).

We conducted moderator analyses on the overall, negative and positive parenting behaviour-child PTSS analyses, including variables where there were at least four studies in each sub-category (Bakermans-Kranenburg et al., 2003). We used meta-regression when a moderator was a continuous variable in order to quantify the relationship between the magnitude of the moderator and the parenting – child PTSS effect (Borenstein, Hedges, Higgins, & Rothstein, 2009). We examined the following variables as potential moderators of the association between parenting behaviour-child PTSS: study design (cross-sectional or longitudinal); whether the trauma was intentional, unintentional, or mixed; how child PTSS were measured (questionnaire or

interview); child trauma type (injury or illness, natural disaster, road traffic accident, war, interpersonal violence, or mixed); how parenting was measured; the parenting behaviour informant; whether the trauma was a group (e.g., natural disaster) or individual trauma (e.g., assault); informant for child PTSS; type of parenting measured in each study (negative parenting behaviours, positive, or both); child mean age²; study location (USA or Other); child gender; parent gender; and time since trauma at the first study assessment. We combined mixed and intentional subcategories of the trauma intentional moderator to allow for a meaningful contrast between subsets ($k=4$).

Results

Meta-Analysis of Overall Parenting-Child PTSS

Meta-analysis of combined negative and positive parenting behaviours yielded a significant mean effect of the overall parenting and child PTSS association of 0.20 ($p < .0001$, 95% CI 0.13, 0.26). This meets the criteria for a small effect and suggests that overall parenting behaviours accounted for approximately 3.8% of the variance in childhood PTSD. A forest plot of the associations between overall parenting and child PTSS can be found in Figure 2.2.

The results of the heterogeneity analysis were highly significant, $Q(13) = 44.6$, $p < .0001$, $I^2 = 72.6\%$, which potentially indicates the presence of moderating variables (Huedo-Medina et al., 2006). Between-group differences in effect size related to study-level moderators were tested using the between-group Q statistic within a random effects model. Results revealed no significant moderating effect on the association between parenting and child PTSS of whether the trauma was intentional, unintentional, or mixed (between-group $Q(2) = 0.05$, $p = .82$); child PTSS measurement (questionnaire, interview; $Q(1) = 0.22$, $p = .64$); parenting behaviour measurement (questionnaire, interview; $Q(1) = 0.07$, $p = .79$); trauma type ($Q(5) = 2.15$, $p = .83$); type of parenting measured in each study ($Q(2) = 0.67$, $p = .71$); whether the trauma was a group or individual trauma ($Q(1) = 2.72$, $p = .10$), child mean age ($Q(1) = 1.6$, $p = .21$);

² One study only had median versus mean child age available. We conducted sensitivity analysis to examine whether including median age as a proxy for child mean age in this one case had a significant effect. This was not the case. Excluding the study which used median age from moderator analyses did not alter the findings and age remained non-significant as a moderator in both the overall (between-group $Q=3.63$, $p=.06$) and positive (between-group $Q= 3.19$, $p=.07$) parenting-PTSS analyses to which the study contributed an ES.

parent gender ($Q(1) = 2.1, p = .15$); study location ($Q(1) = 0.21, p = .65$); and time since trauma at the first study assessment ($Q(1) = 0.36, p = .55$).

Moderator analyses did identify significant between-group Q statistics for the relationships between parenting – child PTSS and study design ($Q(1) = 14.12, p = .0002$), parenting behaviour informant ($Q(2) = 8.20, p = .02$), and child gender ($Q(1) = 5.03, p = .03$). The results of these moderator analyses are shown in Table 2.2. Follow-up analyses suggest that larger effect sizes were found for: (i) cross-sectional designs ($ES = .27$) compared to longitudinal designs ($ES = .09$) although both population effect size estimates were significantly greater than zero; and (ii) child ($ES = .28$) in comparison to parent ($ES = .15$), or both parent and child ($ES = .12$) reports of parenting behaviour (population effect size estimates were significantly greater than zero for each set of informants). Meta-regression analysis indicated a significant negative association between parenting- child PTSS and (iii) the percentage of males in a study ($B = -.009$), meaning the effect size decreases by .09 with every 10% increase in the percentage of males.

Meta-Analysis of Negative Parenting-Child PTSS

Meta-analysis examining exclusively negative parenting behaviours (hostility, overprotection) identified a significant negative parenting and child PTSS association mean ES of 0.23 ($p < .0001$; 95% CI 0.15, 0.31). This mean ES meets the criteria for a small effect, suggesting that negative parenting was associated with approximately 5.3% of the variance in childhood PTSS. A forest plot of this analysis can be found in Figure 2.3.

The heterogeneity analysis produced significant results, ($Q(10) = 42.0, p < .0001, I^2 = 74.3\%$), potentially indicating the presence of moderator variables. The only significant moderator of the negative parenting and child PTSS association was study design (between-group $Q(1) = 7.5, p = .006$). The results of this moderator analysis are shown in Table 2.3. Analyses indicated that significantly larger ES s were found for cross-sectional design ($ES = .32$) compared to longitudinal study design ($ES = .14$), although both population ES estimates were significantly greater than zero.

Meta-Analysis of Positive Parenting-Child PTSS

The mean ES of the positive parenting and child PTSS association was 0.14, suggesting that positive parenting accounted for 2.0% of the variance in child PTSS

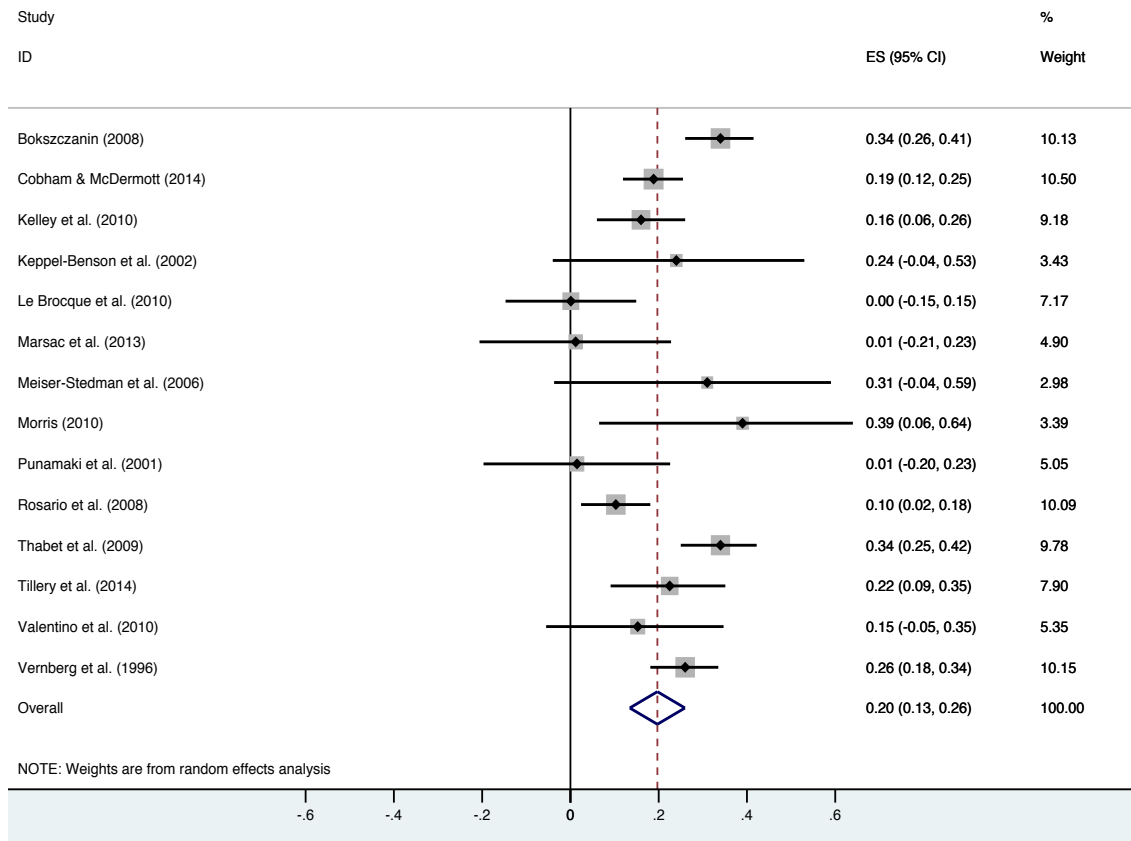


Figure 2.2. Forest plot of the associations between overall parenting behaviours and child PTSS. CI = confidence intervals.

Table 2.2

Moderator Analyses for Overall Parenting and Child PTSS

Moderator	<i>k</i>	<i>r</i>	CI, 95%	I^2 (%)	Q	Between- group Q	Tau^2
Random Effects Model ^a	14	0.196	0.131, 0.26	72.55	44.59		0.01
Study Design				39.88	19.28	14.12**	0.0026
Longitudinal	8	0.093*	0.002, 0.17				
Cross- sectional	6	0.273**	0.215, 0.33				
Parenting Informant				44.01	20.87	8.20*	0.0035
Child	6	0.279***	0.208, 0.35				
Parent	4	0.148*	0.061, 0.235				
Both	4	0.122*	0.018, 0.226				
Percentage Males	1 3	0.638*	-0.016, - 0.001	48.42	27.66	5.03*	0.0058

Note. *k* = number of correlations, I^2 = Higgins & Thompson's (2002) measure of heterogeneity, CI = confidence interval, Q = Cochran's (1954) measure of homogeneity, Tau^2 = between study variance in random effects model. ^aTotal Q-value used to determine heterogeneity, **p*<.05, ** *p*<.01, ****p*<.001.

and was statistically significant ($p < .05$, 95% CI 0.02, 0.26). A forest plot of this analysis can be found in Figure 2.4. The heterogeneity analysis produced strongly significant results ($Q(10) = 62.1$, $p < .0001$, $I^2 = 88.5\%$), suggesting the presence of moderator variables.

Significant moderators of the relationship between parenting and child PTSS were study design (between-group ($Q(1) = 6.52$, $p = .01$), parenting behaviour informant ($Q(2) = 12.5$, $p = .002$), and group vs individual trauma ($Q(1) = 4.25$, $p = .04$). The results of moderator analyses are shown in Table 2.4. Follow up analyses suggested that larger effect sizes were found for (i) cross-sectional designs ($ES = .24$) compared to longitudinal designs ($ES = -.01$), (ii) child ($ES = .22$) in comparison to parent ($ES = -.19$), or both parent and child ($ES = -.02$) informants of parenting behaviour reports (iii) group trauma ($ES = .25$) in comparison to individual trauma ($ES = .05$).

Finally, to test whether the mean effects for the positive and negative parenting strategies were significantly different, the 85% confidence intervals for the combined effect sizes were compared for overlap. Non-overlap of the 85% confidence intervals suggests a significant difference between the combined effect sizes (Goldstein & Healy, 1995; IJzendoorn & Juffer, 2005). The 85% confidence intervals for negative ($CI = .17, .29$) and positive parenting ($CI = .05, .23$) overlapped, indicating that the negative and positive parenting and child PTSS associations are not significantly different (Payton et al., 2003). A three-level hierarchical linear modelling approach (Noorgate et al., 2015) was also utilised and the results of this analysis confirmed the impression gained from the 85% confidence interval comparison, as the difference in ESs for negative and positive parenting ($ES \text{ difference} = .073$, 95% CI $-.06, .21$, $SE = .068$) was not significant ($p = .28$).

Sensitivity Analyses

We conducted sensitivity analysis to substantiate the method of using an average ES estimate of mother and father report of parenting, by using the alternative approach of calculating a composite ES of the mother and father reports. We calculated the composite effect using the weighted means of the individual ESs as recommended for combining multiple subgroups (Borenstein et al., 2009). The use of a composite effect did not alter the results of the overall parenting ($ES = .20$; $p < .0001$, 95% CI 0.14, 0.26), positive parenting ($ES = .14$; $p < .05$; 95% CI 0.02, 0.26) or negative parenting- PTSS association ($ES = .23$; $p < .0001$; 95% CI 0.15, 0.31).

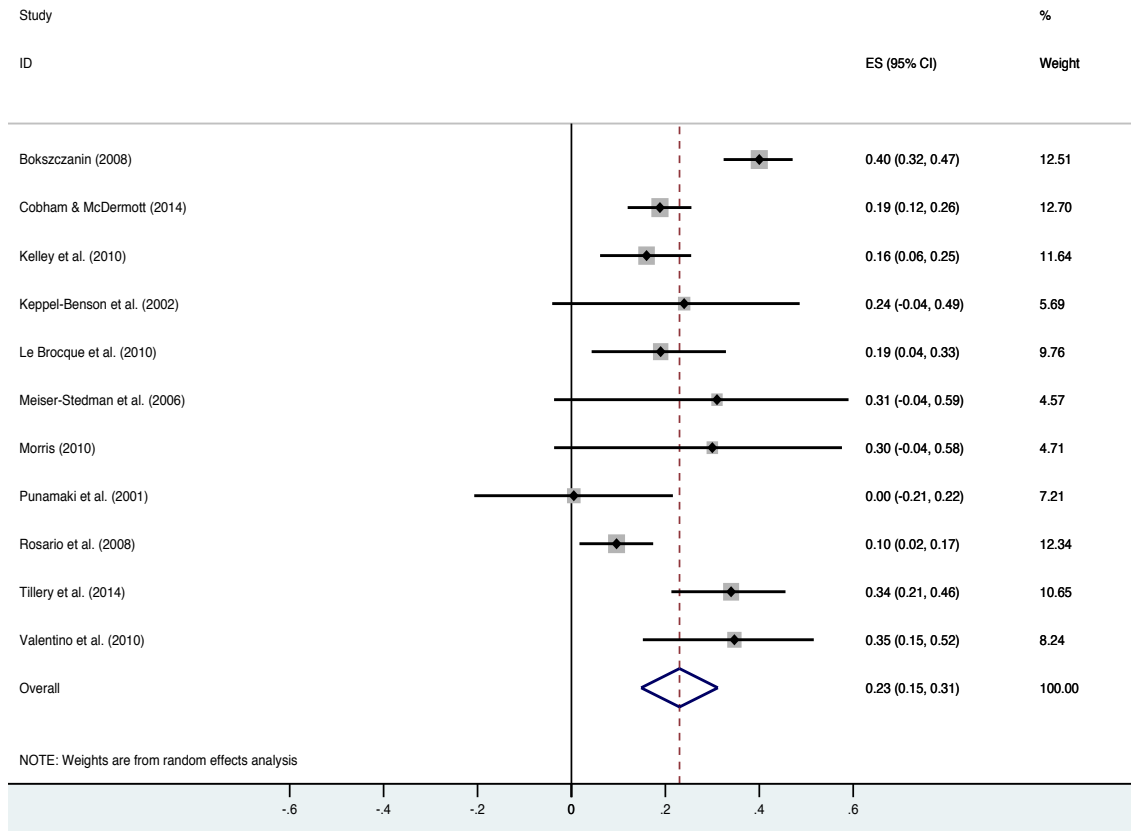


Figure 2.3. Forest plot of the associations between negative parenting behaviours and child PTSS. CI = confidence intervals.

Table 2.3

Moderator Analyses for Negative Parenting and Child PTSS

Moderator	<i>k</i>	<i>r</i>	CI, 95%	I^2	Q	Between -group Q	Tau^2
Random Effects Model ^a	11	0.23	0.15, 0.306	74.32	41.97		0.012
Study Design				54.22	22.01	7.48**	0.006
Longitudinal	5	0.136*	0.004, 0.23				
Cross- sectional	6	0.315**	0.227, 0.403				

Note. *k* = number of correlations, I^2 = Higgins & Thompson's (2002) measure of heterogeneity, CI = confidence interval, Q = Cochran's (1954) measure of homogeneity, Tau^2 = between study variance in random effects model. ^aTotal Q-value used to determine heterogeneity, * $p < .05$, ** $p < .01$, *** $p < .001$.

We also conducted a sensitivity analysis to examine the possible impact of using the first available time point to calculate a single effect size in studies that included multiple time points ($k = 3$). We calculated composite ES estimates across time points (Borenstein et al., 2009). Use of a composite effect again did not substantially alter the results of the overall parenting-PTSS analysis which yielded a significant mean effect of 0.19 ($p < .0001$, 95% CI 0.13, 0.27), or the associations between PTSS and positive (ES = .15, $p < .01$; 95% CI 0.04, 0.26) and negative parenting (ES = .22, $p < .0001$; 95% CI 0.13, 0.31)³.

Finally, sensitivity analysis was conducted to determine the possible impact of study quality rating. Study quality was not found to be a significant moderator of the overall parenting ($Q(1)=7.88$, $p = .163$); negative parenting ($Q(1)= 2.85$, $p=.722$) or positive parenting-PTSS analyses ($Q(1)=4.17$, $p=.526$).

Publication Bias

No evidence for publication bias was found for overall parenting and positive parenting. For overall parenting and positive parenting, visual inspection, rank correlation (Begg & Mazumdar, 1994), and Egger's tests (smallest $p = .82$) indicated non-asymmetric funnel plots (Figures 2.5 & 2.6). Furthermore, the trim and fill procedure did not impute any studies for overall parenting or positive parenting. For negative parenting, the trim and fill procedure indicated moderate publication bias (Figure 2.7). After adjusting for missing studies ($n = 4$), the ES decreased from .23 to .14 ($p < .001$, 95% CI 0.02-0.25). The rank correlation ($\text{Tau} = .16$, $p = .54$) and Egger's ($p = .71$) tests were not significant.

Discussion

The primary aim of this review was to identify the nature and strength of the relationship between parenting behaviours and childhood PTSS. In particular, we focused on the association between child PTSS and two broad parenting constructs: negative parenting behaviours (e.g., overprotection, hostility) and positive parenting behaviours (e.g., warmth, support). Although based on a relatively small number of

³ Note that in calculating a combined effect across time points for the sensitivity analysis, the variance of the combined effects was assumed at $r=0.5$ and attrition was not incorporated in the calculations which may have influenced the results.

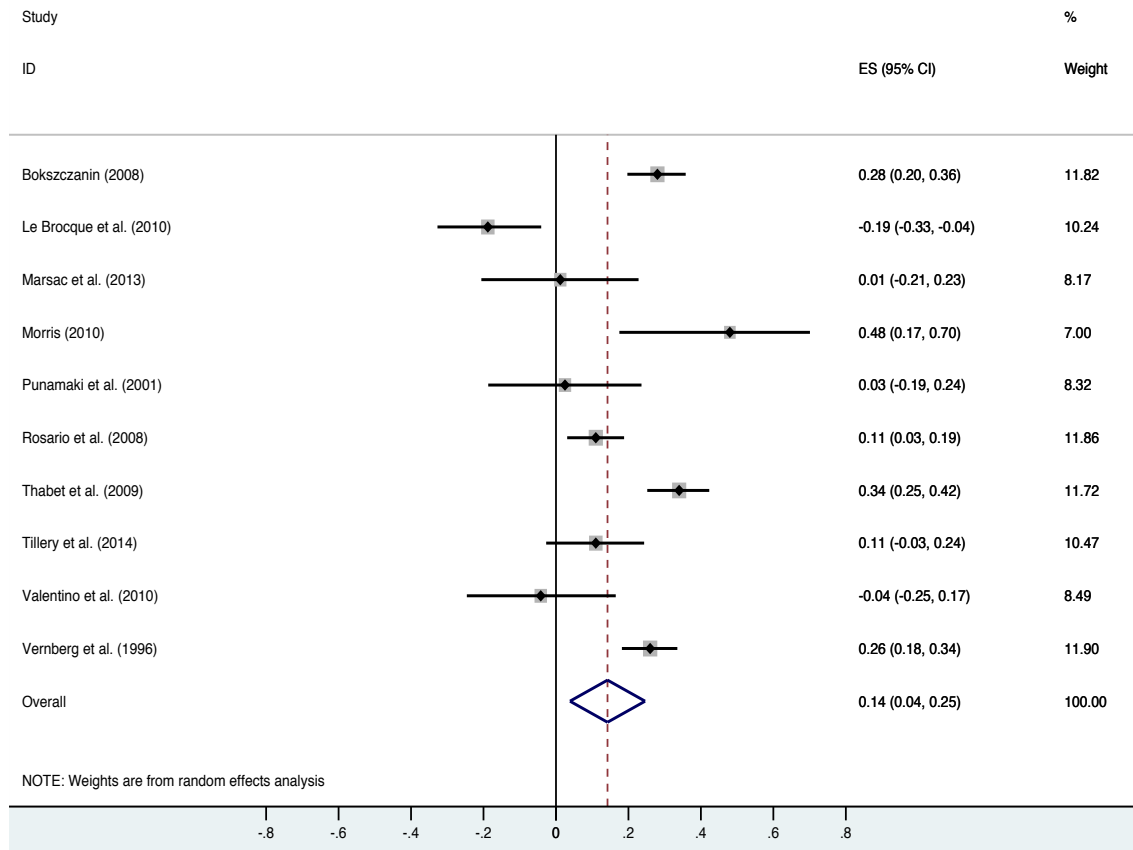


Figure 2.4. Forest plot of the associations between positive parenting behaviours and child PTSS. CI = confidence intervals.

Table 2.4

Moderator Analyses for Positive Parenting and Child PTSS

Moderator	<i>k</i>	<i>r</i>	CI, 95%	<i>I</i> ²	<i>Q</i>	Between-group <i>Q</i>	<i>Tau</i> ²
Random Effects Model ^a	10	0.14	0.022, 0.255	88.50	62.09		0.030
Study Design				78.37	30.98	6.52**	0.016
Longitudinal	4	-0.007	-0.154, 0.141				
Cross-sectional	6	0.239**	0.122, 0.357				
Parenting Informant				73.97	26.65	12.48*	0.009
Child	7	0.224***	0.134, 0.315				
Parent	1	-0.19	-0.436, 0.056				
Both	2	-0.016	-0.221, 0.189				
Group Trauma				79.64	28.56	4.25*	0.017
Individual Trauma	6	0.053	-0.075, 0.18				
Group Trauma	4	0.253*	0.112, 0.393				

Note. *k* = number of correlations, *I*² = Higgins & Thompson's (2002) measure of heterogeneity, CI = confidence interval, *Q* = Cochran's (1954) measure of homogeneity, *Tau*² = between study variance in random effects model. ^a Total *Q*-value used to determine heterogeneity, **p*<.05, ** *p*<.01, ****p*<.001.

studies, the results of the meta-analysis indicate that the association of parenting behaviours and child PTSS is modest but reliable, with parenting behaviour overall accounting for 3.8% of the variance in childhood PTSD. Further analysis yielded significant mean ES estimates for both negative (5.3% of child PTSS variance) and positive parenting (2% of variance). The ESs for these two parenting constructs were not significantly different when tested formally.

Negative aspects of parenting

In order to provide further insight into the significant association between negative parenting and child PTSS the sub-dimensions of this parenting construct and corresponding individual study ESs were reviewed in detail. Of the seven studies that investigated parental overprotection and child PTSS, four reported significant associations, with ESs in the small (Cobham & McDermott, 2014; Keppel-Benson et al., 2002; Le Brocque et al., 2010) to moderate range (Bokszczanin, 2008; Meiser-Stedman, Yule, Dalgleish, Smith, & Glucksman, 2006; Morris, 2010; Tillery, Long, & Phipps, 2014). The variation in the strength of effects may reflect sample characteristics and the measurement tools utilised, as both showed substantial variability (see Table 2.1). For example, Cobham & McDermott (2014) reported the smallest association between overprotection and child PTSS (see Figure 2.3) and it is notable that parenting was assessed using an interview schedule which, while based on child anxiety aetiology, had not previously been validated. Nonetheless, overall the available evidence suggests that there is a modest but reliable association between overprotective parenting and child posttraumatic distress.

Less consistent results were reported in the five studies which examined critical or hostile parenting and child PTSS. Of these, only two studies found that higher levels of parental hostility were significantly associated with more child PTSS (Kelley et al., 2010; Valentino et al., 2010) and the majority of reported effects were small (Punamäki et al., 2001; Kelley et al., 2010; Rosario et al., 2008). It is notable that the majority of studies which examined parental hostility and child PTSS received lower methodological quality scores (see Table 2.1) and this was often due to incomplete descriptions of sampling methods, thus the potential for sampling bias must be considered. Furthermore, Punamäki et al. (2001) found that neither maternal nor paternal hostility/criticism was significantly associated with higher levels of child PTSS; however, as Punamäki et al. (2001) was the only study to examine

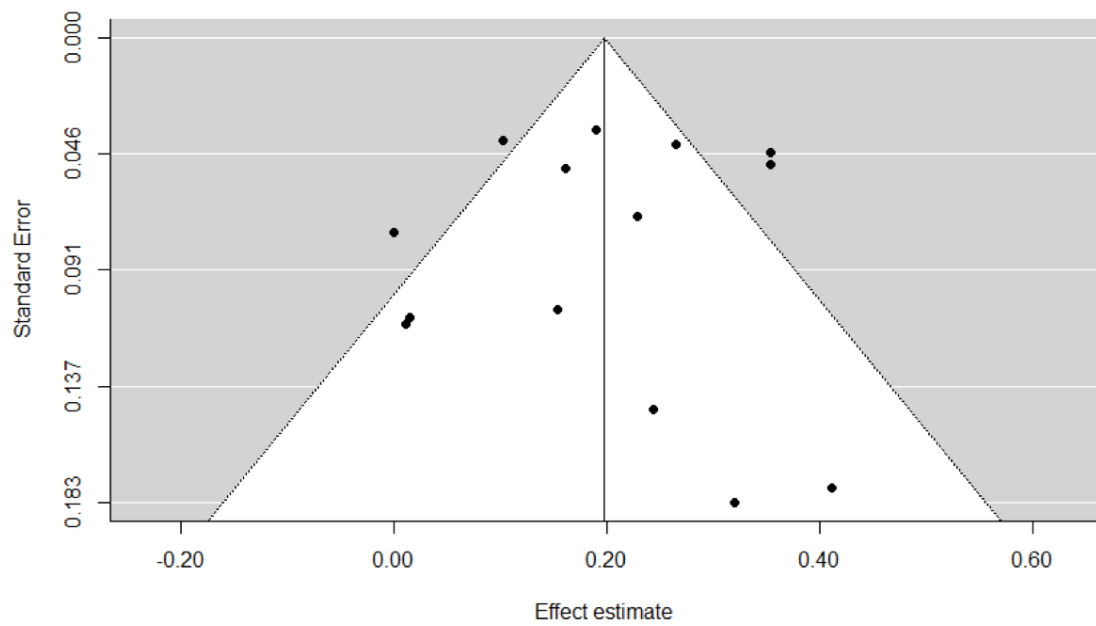


Figure 2.5. Funnel plot for meta-analysis of the associations between overall parenting behaviours and child PTSS. Each point on the funnel plot represents an individual study estimate included in the overall parenting behaviours and child PTSS meta-analysis, without imputed studies.

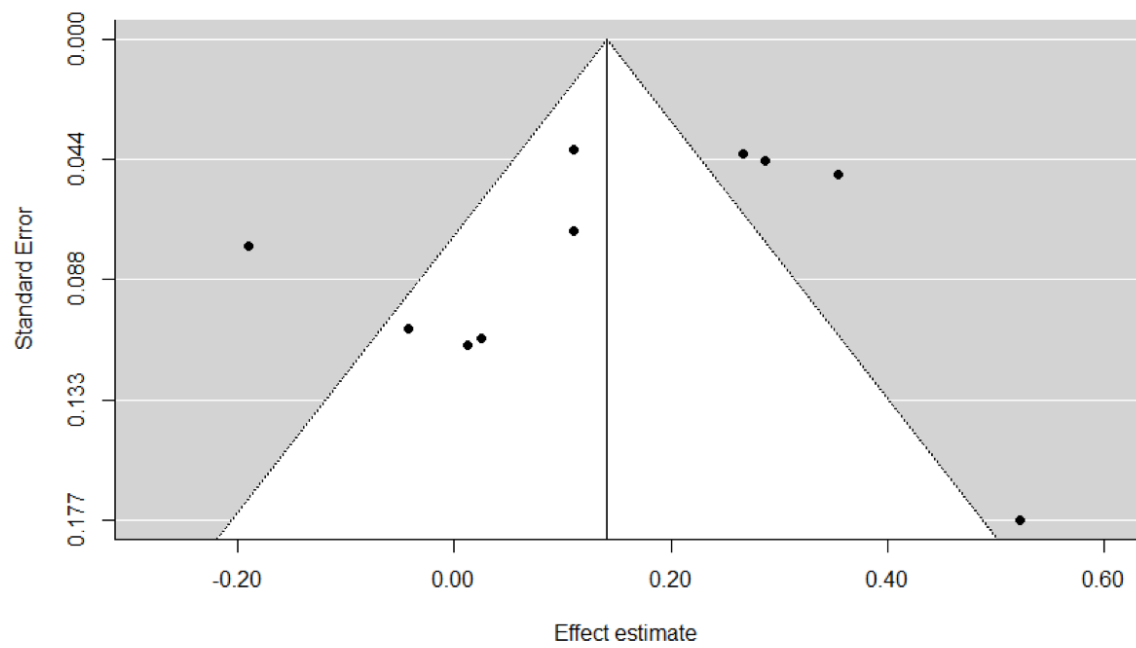


Figure 2.6. Funnel plot for meta-analysis of the associations between positive parenting behaviours and child PTSS. Each point on the funnel plot represents an individual study estimate included in the positive parenting behaviours and child PTSS meta-analysis, without imputed studies.

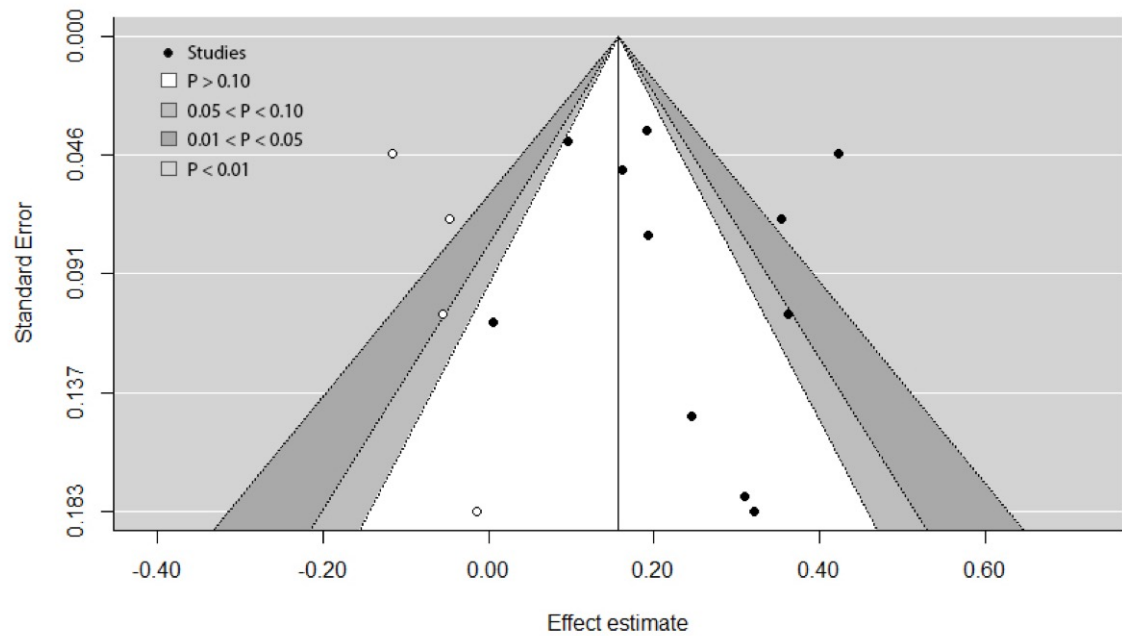


Figure 2.7. Contour enhanced funnel plot for meta-analysis of the associations between negative parenting behaviours and child PTSS. Each point on the funnel plot represents an individual study estimate included in the negative parenting behaviours and child PTSS meta-analysis, with imputed studies. White circles = studies imputed by the Duval and Tweedie trim and fill procedure.

simultaneously both maternal and paternal hostility in relation to child PTSS, further investigation is warranted.

The observation that lower levels of autonomy granting and excessive control may be more consistently associated with child PTSS than overtly negative parenting behaviours (such as hostility) is in line with the broader child anxiety literature, which emphasises the key role of parental autonomy restriction in child anxiety aetiology (McLeod et al., 2007). Child trauma exposure has been linked with increases in parent monitoring behaviour (Boksztzanin, 2008; Henry et al., 2004) and parents may be persistently overprotective of their child following a trauma due to fears that the child may be traumatised again (Scheeringa & Zeanah, 2001). The results of the current review tentatively suggest that, in comparison to parental hostility or criticism, overprotective parenting practices are more likely to be obstructive to the child's post-trauma recovery process. To date, no intervention studies have focused on decreasing parental overprotectiveness or control following child trauma (for a review see Stallard, 2006) and the direction of the effects remains unclear.

Positive parenting domains

Previous research has also highlighted the importance of parental warmth and support for child adjustment post-trauma (Marsac et al., 2013; Pynoos & Nader, 1988; Vogel & Vernberg, 1993). However, the results of our positive parenting analyses yielded a small effect, explaining only 2.0% of the variance in child PTSD. Moreover, the ten studies which examined the association between parental support and child PTSS yielded mixed findings. Six studies reported negative associations between warm or supportive parenting and child PTSS, with ESs ranging from small (Boksztzanin, 2008; Rosario et al., 2008; Vernberg, Silverman, La Greca, & Prinstein, 1996) to large (Morris, 2010), suggesting that more warm, supportive parenting is associated with fewer child PTSS. Conversely, three studies reported significant *positive* associations between parental warmth and child PTSS, indicating that greater parental warmth may be associated with more PTSS (Le Brocque et al., 2010; Punamäki et al., 2001; Valentino et al., 2010). For example, Le Brocque et al. (2010) found a small, yet significant, positive association between parental support and child PTSS following a traumatic accident (e.g., falls, motor vehicle accidents); while Punamäki et al. (2001) found a positive association between maternal warm support and child PTSS and a negative association between paternal warm support and child PTSS. The majority of studies that reported negative associations relied on child-report of both parenting and

PTSS and the potential influence of single-source error must be considered. Overall, the available evidence suggests that parental support and/or warmth are not consistently/strongly associated with child PTSS, and warrant further investigation before being considered as a potential intervention target.

Although ES estimates of the parenting-child PTSS association were slightly larger for the negative parenting dimension than for positive parenting behaviours, it is important to note that the difference in ESs for these two parenting constructs was not significant when tested formally. The need for caution in drawing conclusions regarding the relative impact of positive versus negative parenting behaviour is further underscored by the assessments of publication bias (i.e., Eggers test, rank correlation, “trim and fill”). Evidence of possible publication bias was present for negative parenting using the trim and fill method and after adjusting for missing studies, the association between negative parenting and child PTSS was smaller in magnitude and more consistent with that for positive parenting. It should be noted that publication bias is not the only explanation for funnel plot asymmetry (other explanations include data irregularities, poor methodological design of small studies, or true heterogeneity). Tests of publication bias assume homogeneity, which was not the case for our data; and the Egger’s and rank correlation tests did not find evidence of publication bias. Nonetheless, the ES for the negative parenting-PTSS association may be smaller than estimated. No evidence of publication bias was found for overall or positive parenting.

Moderators of effects

In addition to the main effects, we identified significant moderators of the association between parenting and child PTSS, including study design, child sex, whether the trauma was a group or individual trauma, and the parenting behaviour informant. With respect to study design, cross-sectional studies yielded a stronger relationship between child PTSS and parenting. Cross-sectional studies, which assess child PTSS and parenting simultaneously, provide no indication as to the direction of effects, and the weaker effect found in the studies where longitudinal effects were incorporated may suggest an influence of the child on parenting behaviour. Alternatively, as longitudinal studies frequently experience difficulties with participant retention, this finding may reflect inherent differences between participants who continue to take part in projects in comparison to those who drop out.

Child sex was a significant moderator in the overall parenting meta-analysis with a greater proportion of female children in a study sample yielding a greater mean effect. This finding is consistent with other reviews (Brewin et al., 2000; Foy et al., 1996; Trickey et al., 2012) and supportive of female sex as a potential moderator in the association of parenting and child PTSS. Previous research has found girls to exhibit more internalising symptoms than boys, who generally display more externalising problems (Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Winje & Ulvik, 1998), and the exclusive measurement of PTSS may only adequately take into account adverse reactions in females post-trauma. Future research should further understanding of boys' difficulties post-trauma by broadening outcome measures to include a wider range of adverse reactions.

Whether the trauma was a group or individual trauma was found to moderate the association between positive parenting and child PTSS. Group trauma yielded a significantly higher ES than individual trauma which could reflect the impact of a mass trauma on family functioning and available parental support (Chrisman & Dougherty, 2014). Previous research has documented the significant association between parent and child PTSS (Morris et al., 2012), between parental non-PTSD psychopathology and child PTSS (Morris et al., 2012) and the association between poor family functioning and maternal depressive and PTSD symptoms (Wickrama & Kaspar, 2007). While we were unable to examine statistically the effects of parent PTSD and other parental psychopathology (e.g., depression), as few of the included studies consistently measured these factors, previous research suggests that parents' own psychological difficulties may make it more difficult for parents to provide their children with the support needed post-trauma (McFarlane, 1987; Morris et al., 2012; Vernberg et al., 1996). Future studies examining the association between child PTSS and parenting behaviours could consider the role of particular types of trauma as well as parent psychological adjustment difficulties, which may influence the parenting-child PTSS relationship.

Parenting informant was a significant moderator in the overall and positive parenting meta-analyses, with child report of parenting yielding a pattern of greater effects across all analyses. These results may reflect parents' own psychological adjustment difficulties or social desirability bias in parent report, as research in non-clinical samples has found parents to be overly positive in self-reports of parenting behaviours compared to child or observer report (Bögels & Melick, 2004; Gaylord,

Kitzmann, & Coleman, 2003). Alternatively, as several of the studies that utilised child reports of parenting also relied on child report of PTSS this may have resulted in single informant bias. In fact, Valentino et al. (2010) was the only study in this review to include both parent and child reports of parenting as well as child PTSS. Such methodological deficiencies mean the results should be interpreted with caution and future studies employing systematic observational assessments are suggested. Assessment of child PTSD by interview or questionnaire methods and the study location were not significant moderators across all the meta-analyses conducted in this review. There were also no significant moderating effects of child age across all the meta-analyses conducted, which suggests that the effects of parenting behaviours on child PTSS are not affected by child age. This is in line with the findings of previous reviews that younger age is not a moderator for the development of child PTSD (Foy et al., 1996; Trickey et al., 2012).

Study quality rating was also not found to be a significant moderator of the overall, negative or positive parenting-PTSS analyses. The most common reasons for lower quality scores were due to poor descriptions of sampling methods, the provision of insufficient information to assess study sample size, or lack of information regarding the quality and robustness of the assessments used to measure child PTSS and/or parenting. Complete and accurate reporting of study procedures is necessary to gain a deeper understanding of the relationship between parenting and child PTSD and this review highlights the need for future research to provide readers with additional study information.

Overview of the literature

Some key considerations arose in reviewing the overall body of research in this area. First, more than half of the studies included in this review utilised a cross-sectional design, and there was evidence that longitudinal studies yielded smaller effects. It is difficult to draw strong conclusions based on this observation, as cross-sectional studies also tended to have higher quality ratings (range 15-17 versus 10-16 for longitudinal designs). Nonetheless, the direction of causation, whether child post-trauma difficulties elicit negative parenting behaviours or vice versa, remains unclear and should be examined in future prospective studies. The possibility that parental behaviours may be a response to child distress rather than a cause of it has been particularly highlighted in the anxiety literature in relation to overprotective parenting (Hudson, Doyle & Gar, 2009). It is also possible that genetic factors or other extraneous

variables underpin observed associations. Genetic influences in relation to parenting behaviour may occur as a consequence of the parent's own genes or due to genetically driven child traits which elicit certain parenting styles (Klahr & Burt, 2014), with some evidence indicating that the latter effects are stronger for negative versus positive parenting aspects (Oliver, Trzaskowski & Plomin, 2014).

It is also worth noting that parenting behaviours may be indicative of wider characteristics of the family environment that are relevant to child PTSS (Boksaczanin, 2008; La Gaipa, 1990). A high level of conflict within the family may be perceived by youth as a lack of family support or 'negative support' and such negative family support, including blaming or showing disinterested responses, has been found to significantly hinder child psychological recovery post-trauma (Gleser, Green, & Winget, 1981; Kaniasty, 2005; Lepore, Silver, Wortman, & Wayment, 1996). Boksaczanin (2008) also reported that family conflict was negatively associated with parental support, with a large ES, which reinforces previous findings that high-conflict family atmosphere following a trauma may be perceived by youth as a lack of support, contributing to child adjustment difficulties (La Gaipa, 1990; La Greca & Bearman, 2003; Udwin, Boyle, Yule, Bolton, & O'Ryan, 2000). These findings underscore the role of poor family functioning as a potential risk factor in the development of child PTSS and suggest that any post-trauma efforts to alter parental support should also target the broader family context. Along the same lines, the wider context may also be important to understanding both parental and child responses following trauma. Thus, in a recent qualitative study of families living in a South African context where levels of adversity and child trauma are high, we found that caregivers of trauma exposed youth placed a particularly strong emphasis on ensuring protection from future harm, but both this and levels of child PTSS could potentially be explained by the real levels of ongoing contextual threat (Williamson, Butler, Tomlinson et al., in submission).

Almost all of the studies included in the current review used questionnaires as the sole method of assessing parenting. Where children versus parents reported on parenting behaviour, effects were stronger in magnitude. However, overall, questionnaire based measures of parenting are subject to bias and independent, observational assessments are considered the gold standard in the wider parenting literature. In this respect, it is encouraging that there are new developments in the literature that will support observational assessments of parenting following child trauma (e.g., Alisic, Barrett, Bowles, Conroy, & Mehl, 2016; Marsac & Kassam-

Adams, 2016). It is also the case that the focus of the current review was on dimensions of parenting that tended to be relatively broad. Few studies specifically examined change in parenting since the trauma, or included questions that focused on trauma-specific parental responses, although there were some notable exceptions to this (Cobham & McDermott, 2014; Keppel-Benson et al., 2002). In the wider literature, there are examples of studies that have examined specific aspects of parental support, such as providing opportunities to talk about the trauma (Stallard et al., 2001), offering positive re-framing coping advice regarding the trauma and its sequelae (Kilmer & Gil-Rivas, 2010), or attempting to reinstate the child's pre-trauma routines (Greeff & Wentworth, 2009). The limited nature of this evidence base made it impossible to include such observations in our meta-analysis, but it is worth considering that existing research has highlighted a number of specific ways in which parents may respond to support child with posttraumatic distress (e.g., Alisic et al., 2012; Prinstein, La Greca, Vernberg, & Silverman, 1996; Williamson, Creswell, Butler, et al., 2016; Williamson, Butler, Tomlinson et al., in submission).

In addition to the focus on general parenting domains, the existing evidence base provides little information about the *process* by which parenting could influence child outcomes. Thus, although a number of cognitive-behavioural and emotional processes have been identified in the literature as being associated with the development of PTSD, there has been little consideration of whether factors such as child negative appraisals or emotional dysregulation mediate any influence of parental behaviour. Moreover, parental PTSD has been established as a risk factor for child PTSD, and has been linked to parenting difficulties in a number of studies (see Trickey et al., 2012). However, a limited number of studies in our review included measures of parental PTSS ($k=3$) and we could not take account of this in our analyses. Identifying specific aspects of parental post-trauma support that may influence child PTSS, elucidating the pathways via which they exert that influence, and taking account of parental mental health are each likely to inform the development of more effective, family based interventions.

A final observation in relation to the evidence included in the current review concerns the types of samples that were included. The majority of studies in this review were conducted in relatively low-risk contexts (e.g., USA, Australia, UK, and Poland). Only two studies in this review were based in non-Western, high-risk environments (Punamäki et al., 2001; Thabet et al., 2009). Index trauma in four studies was child exposure to a natural disaster (e.g., Hurricane Katrina). In six studies, child trauma

exposure consisted of serious illness and/or injuries (e.g., road traffic accidents) and four studies focused on exposure to community violence. Time since trauma varied between studies with some studies conducting assessments immediately following trauma exposure during hospital treatment and others delivering assessments up to 5 years post-trauma. Taken together, despite child exposure to a range of traumatic experiences, additional research is needed in high-risk, non-Western contexts to further our understanding of the relationship between parenting and child PTSS.

Clinical implications

Previous research has found parental participation in child PTSD treatment to result in improved child outcomes compared to child-only or parent-only interventions (Deblinger, Lippmann, & Steer, 1996; Runyon, Deblinger, & Steer, 2010; Salloum, Scheeringa, Cohen, & Storch, 2014). These findings tentatively suggest that there may be some benefit in simultaneously addressing particularly negative parenting practices during the course of child PTSD treatment. A potentially beneficial supplement to child treatment may include a session for parents to consider and discuss the adverse implications of negative parenting practices, such as parental overprotection, on child adjustment with a clinician and the provision of support and guidance for behaviour change (Cobham, et al., 2016). Moreover, as research has found adult patients with PTSD whose relatives score highly on scales of expressed emotion with high levels of criticism have poorer treatment outcomes than patients whose families exhibit low expressed emotion (Tarrier, Sommerfield, & Pilgrim, 1999), efforts to improve poor family communication following child trauma exposure could be advantageous to child recovery. This is supported by the promising results of the Child and Family Traumatic Stress Intervention that aims to improve parent-child communication of feelings and symptoms post-trauma (Berkowitz et al., 2011). However, as the direction of effects, whether child symptoms evoke negative parenting or vice versa, remains unclear, it is also possible that effective treatment of child PTSS alone may result in changes in parenting practices.

Strengths and limitations

This review was limited by several factors that should be noted when interpreting the results. First, although the systematic search strategy was thorough, limiting the inclusion to studies written in English may have excluded some studies of interest. Second, we included published and unpublished studies in this review, in order

to limit the potential impact of publication bias and provide a more objective, complete answer as to the magnitude of the association between parenting and child PTSS (McAuley, Pham, Tugwell, & Moher, 2000). Meta-analyses that exclude unpublished data have been found to over-represent studies with statistically significant findings and result in less precise estimates of ES than reviews including grey, unpublished literature (Conn, Valentine, Cooper, & Rantz, 2003; McAuley et al., 2000). Nonetheless, this inclusion may have introduced other biases, as the methodological quality of unpublished, grey literature may be lower. The methodological quality of all included studies was assessed in order to examine the degree to which study design, conduct and analyses minimised potential errors and bias (Kmet, Lee, & Cook, 2004). Third, the categorization of parenting practices into two broad dimensions of ‘positive’ or ‘negative’, while in line with the extant literature, does not allow for a detailed examination of specific parenting behaviours that may be influential in child PTSS. Fourth, studies that reported the association between both positive and negative parenting behaviours and child PTSS, such as Punamäki et al., (2001), contributed an ES to both analyses and this overlap may have influenced our findings. However, this meta-analytic technique allowed for a closely balanced comparison of positive ($k=10$) and negative ($k=11$) parenting dimensions.

The number of studies included in the meta-analysis was constrained by the limited number of studies that examined child PTSS and parenting behaviours. In addition, the child PTSS literature has several weaknesses, as pre-morbid psychological adjustment problems and previous life stressors are often not considered and non-validated psychopathology measures are employed. Thus, future studies with strong methodological rigor are needed to overcome potential bias and to further our understanding of the association between parenting and child PTSS. Finally, few of the studies included in this review documented the relationships between fathers’ parenting practices post-trauma and child PTSS, with parent samples being predominantly composed of mothers. Those studies that did examine paternal parenting practices relied exclusively on child-perceptions of parenting. The inclusion of a more representative proportion of fathers in future research would allow for a more accurate understanding of the role of parenting behaviours in child PTSS.

Conclusions

In conclusion, we conducted a comprehensive review and meta-analysis of the associations between parenting behaviours and child PTSS. We found significant but

small associations between parenting behaviours and child PTSS, particularly for negative parenting. However, no significant difference was found between the negative and positive parenting dimensions when tested formally. Given the small number of high quality studies available, we can make only tentative conclusions about the role of parenting and child PTSS. Nonetheless, given the modest proportion of variance accounted for by parenting, we suggest that other factors and influential moderator variables are considered in future research of child PTSD.

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Chapter 3 Paper 2: Parental responses to child experiences of trauma following presentation at Emergency Departments: A qualitative study

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A significant proportion of children will be exposed to traumatic events, such as road traffic accidents or accidental injury, which can be associated with the development of psychological adjustment difficulties. Parents are often childrens' main source of support post-trauma. However, few studies have explored parents' perspectives of providing support to their child following trauma exposure. Therefore, the aim of Paper 2 was to examine parents' experiences of caring for their child following single incident trauma exposure and presentation at an Emergency Department using qualitative methods. Parental views of the formal support provided to family post-trauma were also explored. Qualitative analysis of the data was conducted using thematic analysis. Thematic analysis was chosen as it is used to identify patterns of meaning across the data set as a whole, in keeping with the study's objective of identifying parents' experiences following child trauma exposure.

Statement of Authorship

This declaration concerns the article entitled:									
<i>Parental responses to child experiences of trauma following presentation at Emergency Departments: A qualitative study</i>									
Publication status (tick one)									
Draft manuscript	<input type="checkbox"/>	Submitted	<input type="checkbox"/>	In review	<input type="checkbox"/>	Accepted	<input type="checkbox"/>	Published	X
Publications details (reference)	Williamson, V., Creswell, C., Butler, I., Christie, H., Halligan, S. (2016). <i>Parental responses to child experiences of trauma following presentation at Emergency Departments: A qualitative study</i> . Submitted for publication.								
Candidate's contribution to the paper (detailed, and also given as a percentage)	<p>The candidate contributed to/ considerably contributed to/predominantly executed the...</p> <p>Victoria Williamson made considerable contributions to the conception of the study and the methodological design used (50%). Victoria Williamson predominantly executed the experimental work, including the acquisition, analysis and interpretation of data for the study (95%). Victoria Williamson predominantly executed the presentation of the data in journal format and revised it critically for intellectual content (95%).</p>								
Statement from Candidate	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature.								
Signed						Date			

Parental responses to child experiences of trauma following
presentation at Emergency Departments: A qualitative study

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Abstract

Objective Parents are often children's main source of support following fear-inducing traumatic events, yet little is known about how parents provide that support. The aim of this study was to examine parents' experiences of supporting their child following child trauma exposure and presentation at an Emergency Department.

Design Semi-structured qualitative interviews analysed using thematic analysis.

Setting The setting for this study was two National Health Service Emergency Departments (EDs) in England.

Participants Twenty parents whose child experienced a traumatic event and attended an ED between August 2014 and October 2015.

Results Parents were sensitive to their child's distress and offered reassurance and support for their child to resume normal activities. However, parental anxiety often inhibited children's reinstatement of pre-trauma routines. Support often focused on preventing future illness or injury, reflective of parents' concerns for their child's physical wellbeing. In a minority of parents, appraisals of problematic care from EDs contributed to parents' anxiety and perceptions of their child as vulnerable post-trauma. Forgetting the trauma and avoidance of discussion were encouraged as coping strategies to prevent further distress. Parents highlighted their need for further guidance and support regarding their child's physical and emotional recovery.

Conclusions This study provides insight into the experiences of and challenges faced by parents in supporting their child following trauma exposure. Perceptions of their child's physical vulnerability and treatment influenced parents' responses and the supportive strategies employed. These findings may enable clinicians to generate meaningful advice for parents following child attendance at EDs post-trauma.

Strengths and limitations of this study

- The children included in this study were exposed to a broad range of traumatic events which allows for the inclusion of a wide range of parental views and experiences.
- Reliability of the qualitative analysis was confirmed by the independent assessment of all transcripts, codes and themes by an additional qualitative researcher for agreement. Participants were provided with a summary of the interview findings to ensure the validity and the robustness of the findings.
- Child trauma exposure was limited to single-incident, physical trauma and may not reflect the experiences of parents of children exposed to chronic trauma or trauma not associated with significant physical consequences.
- The majority of participating parents were mothers and father / other caregiver views were less well represented.
- Parent-child dyads were recruited from a relatively low-risk, Western context based in England which may not be generalisable to other contexts without further investigation.

Exposure to trauma is associated with a range of psychological adjustment difficulties for children, including post-traumatic stress disorder (PTSD) which can result in long-term adverse outcomes (Moroz, 2005; Pynoos et al., 2009). Parents are often children's leading source of support post-trauma and parental behaviours may mediate children's resilience (Scheering & Zeanah, 2001). However, little is known about parents' experiences of supporting their children following a traumatic experience. A deeper understanding of parents' experiences of caring for a child post-trauma may inform clinical practice and contribute to the development of meaningful and acceptable guidance for families in which a child has experienced trauma.

We conducted in-depth, qualitative interviews with twenty parents following their child's attendance at hospital Emergency Departments (EDs) in England. We aimed to explore: parents' perceptions of (need for) support, the experiences of parents in supporting their child post-trauma, and the impact of child trauma on family processes.

Method

The study received approval from the National Health Service Research Ethics Committee (14/SC/0043) and University of Bath Department of Psychology Ethics Committee (15-218). Participants gave informed consent (parents) or assent (children).

Participants

Twenty parents and their children were recruited following the child's attendance at one of two EDs in the south of England. The EDs were based in urban areas with a local population of approximately 160,800 and 1,073,000 respectively (Office for National Statistics, 2016). Recruitment took place between August 2014 and October 2015. Participants were eligible for the study if the child was aged 6-16 years and had experienced a traumatic event as defined by DSM-V criterion A for PTSD (American Psychiatric Association, 2013). The following exclusion criteria were applied: parent or child inability to speak English; child organic brain damage or intellectual disability that precludes mainstream schooling; child registered with child protection services; and concerns that the respondent parent inflicted the trauma.

Of the 53 eligible patients approached by the clinical care team, 33 declined (i.e., 37% recruitment rate, consistent with other ED studies, e.g., Meiser-Stedman, Yule, Smith, Glucksman, & Dalgleish, 2005). Reasons for decline as reported to the clinical care team included fatigue and 'wanting to put the event behind them'. It must

be noted that the clinical care team only approached 53 families during recruitment period which is a relatively low number given the number of children seen in EDs in the UK annually (Baker, 2015) and it is possible this figure reflects the staffing pressures of the clinical care team.

Procedure

Purposive sampling was used. Participants were initially identified by the clinical care team following ED attendance. The clinical team sought parental permission for their details to be passed to the research team. Given this agreement, parents were contacted by the study researcher by telephone with further information about the study. Following informed consent/assent, participating parents and children first completed assessments of their psychological adjustment and then parents participated in the qualitative interviews. Parents and children were approached by the clinical care team on average two weeks following ED attendance and families were recruited to the study approximately four weeks post-trauma (range=10-98 days).

Assessments

Child PTSD was measured by the UCLA Post-traumatic Stress Disorder Reaction Index (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998), a widely used measure of child post-traumatic stress symptoms (PTSS) with good internal consistency and test-retest reliability (Steinberg, Brymer, Decker, & Pynoos, 2004). The UCLA-RI is based on the DSM-IV PTSD criteria, has both parent and child report versions, and indexes trauma exposure as well as symptoms. Symptom frequencies are rated on 5-point Likert scales ranging from 0 (“never”) to 4 (“most of the time”), with symptoms scored as present if rated 3 (“much of the time”) or greater. If criterion A is met, children who meet criteria B, C, and D are given a likely “full” diagnosis of PTSD, and children who meet criteria for only two symptom subcategories are given a “partial” PTSD diagnosis (Steinberg et al., 2004). All parents completed the parent report version of the UCLA-RI in relation to their child’s recent experience. In addition, children completed symptom scales (part 2) of the UCLA-RI child report version (Pynoos et al., 1998), providing their own reports of PTSS relating to the event that led to their ED admission.

Qualitative Interview Schedule & Procedure

Interviews were conducted by a female doctoral student (VW) who had training and experience in qualitative methods. Interviews were conducted by telephone and

lasted 57 minutes on average (range=23.5 - 92.6 minutes). The researcher did not have a relationship with participants prior to study commencement. We developed the interview topic guide based on the research questions and the literature on parent-child trauma recovery responses. Interview questions focused on parents' post-trauma responses, concerns about their child, and experiences of providing support. Parents were also asked for their views on the support available post-trauma. Interviews were audio-recorded and transcribed verbatim. Twenty parents completed the qualitative interview and thematic saturation was achieved.

As respondent validation, we provided parents with a written summary of the key findings and preliminary interpretations following the interview. This opportunity to obtain participant feedback further increased the potential reliability and accuracy of the data (Torrance, 2012). In fact, only three parents responded to correct factual details which did not alter the thematic analysis. We treated input from participants regarding the interview summary as additional data.

Data Analysis

We used NVivo 10 (www.qsrinternational.com/products_nvivo.aspx) to conduct thematic analysis on participant transcripts (Braun & Clarke, 2006). Thematic analysis was chosen as the analytic approach for the present study as it is used to report the experiences, meanings and realities of participants (Braun & Clarke, 2006). Thematic analysis was also used given the relatively large sample size of this study ($N=20$) as other approaches, such as Interpretative Phenomenological Analysis, suit smaller sample sizes (e.g., $N=7$). We used the steps proposed by Braun & Clarke (2006): reading and re-reading the data, generating initial codes, searching for and developing candidate themes, and revising and classifying themes. An inductive analytic approach was used, with initial codes and themes proposed by VW. A reflexive journal was kept throughout data collection and analysis by the primary researcher (VW) in an effort to recognise the influence of the researcher's prior experiences, thoughts, and assumptions and prevent premature or biased interpretations of the data. To ensure reliability, all transcripts, codes and themes were independently reviewed by authors VW and HC. Disagreements between authors were infrequent and were resolved following discussion and re-examination of the data. Peer debriefing was conducted and feedback regarding data interpretation and analysis was sought from co-authors IB and SH.

Results

Of our final sample, 75% of participating parents were mothers, 40% of the participating children were female with a mean age of 10.4 years ($SD= 3.2$) (see Table 3.1). 70% of children were admitted to hospital as an inpatient often with multiple injuries ($range= 0-6$) The average UCLA-RI parent-report score was 9.6 ($SD= 10.3$, $Mdn= 6$), and the average UCLA-RI child-report score was 10.73 ($SD= 7.4$, $Mdn= 10$). Three children were classified as having a likely PTSD diagnosis using the UCLA-RI and three children met criteria for a partial diagnosis. While the mean reported UCLA-RI score was low, the number of children meeting criteria for PTSD ($n=3$, 15%) is consistent with similar ED studies (Meiser-Stedman et al., 2005; Meiser-Stedman et al., 2009). Trauma characteristics are described in Tables 3.1 and 3.2.

Qualitative Results

Five key themes emerged from the data reflecting parents' experiences and attempts to support their child post-trauma. Anonymised participant comments are provided to illustrate our findings and all participants have been assigned a pseudonym. Additional quotations are provided in Appendix 4 to further illustrate themes and sub-themes, with a visual representation of themes in Figure 3.1.

Post-trauma Perception of the Child and Event

Parents described several changes in their child's behaviour following the trauma and understood many of these changes to be a result of their child's distress following the traumatic experience.

He did quite like going out on his own...But he's a bit scared now...doesn't wanna cross any roads on his own...the day that we actually left hospital he was he was really scared of crossing the roads straightaway...he's, you know, holding my hand like it was vice like grip. (Annabelle, mother, 44 years)

Some parents were unconcerned by these changes in their child as their post-trauma anxiety was considered to be a result of and limited to the trauma (e.g., fear of water after near-drowning). Other parents described their child as essentially unchanged, with any behavioural changes attributed to their physical injuries post-trauma.

Interviewer: Were there any changes that you noticed in Ian after his accident?

Mother: He has quietened down a little bit... he's been in a lot more [playing]

computer games but... its more because he physically can't join in, not because...it mentally affected his personality or that he's worried. (Harriet, mother, 37 years)

He's the same little boy that he was before really, but he is really scared of traffic. (Violet, mother, 40 years)

Parents often compared their child's post-trauma behaviour to their pre-trauma behaviour to determine whether their child was coping. Parents understood their children to be coping well when they exhibited no behavioural changes or when pre-trauma activities were resumed. Children were also considered to be coping if they did not talk or ask questions about the trauma. Parents thought their child not ruminating about or dwelling on the event contributed to their capacity to cope. Children's ability to cope with the trauma was also thought to stem from either their strength of character, prior exposure to illness and/or injury or younger age.

He's not worried about anything... it's not like he's coming with questions 'what if?' or 'why did this happen to me?' or you know he doesn't have any of those kind of feelings or fears, he just he knows it's a few weeks and hopefully it will heal. (Harriet, mother, 37 years)

Strategies to Support the Child

Parents' experiences of the trauma and their child's subsequent medical care influenced the support they provided. The most prominent themes in parents' narratives reflected a desire to care for their child post-trauma and for family life to continue as normal, whilst protecting children from potential future harm.

Warm support. A minority of parents reported making themselves available for their child and encouraging them to talk to them about their post-trauma distress. Discussion of the event and associated distress were thought to be instrumental to the child's recovery and some parents engaged in lengthy discussions to facilitate their child's disclosure of their feelings.

I'm very much "tell mummy how you feel?" sort of thing ... It's important to for them to tell you how they're feeling emotionally... so I think in that way because of the way we are I think that's helped a lot really. (Annabelle, mother, 44 years)

Many children experienced significant anxiety post-trauma and parents responded with reassurance that the event would not reoccur and normalisation of their post-trauma distress. Parents attempted to address their child's anxiety by initiating confidence building exercises and being nearby to offer reassurance in fear-provoking

Table 3.1

Participant Demographic Information

Demographic characteristic	Sample statistics (n=20)
Parent mean age, <i>M(SD)</i>	41.6 (6.1 SD)
Parent marital status, <i>n(%)</i>	
Single	1 (5%)
Married (first time)/ Cohabiting	17 (85%)
Remarried	2 (10%)
Mean time since trauma, <i>M(SD)</i>	41 days (26.2 SD) (<i>Mdn</i> = 32.5)
<i>Trauma types:</i>	
RTA	8 (40%)
Assault	1 (5%)
Fall from elevation	5 (25%)
Acute medical emergency	4 (20%)
Sporting injury	1 (5%)
Other	1 (5%)
Percentage of children admitted as inpatient, <i>n(%)</i>	14 (70%)
Mean number of injuries sustained, <i>M(SD)</i>	1.95 (1.7)
Mean income, <i>n(%)</i>	
Don't wish to respond	4 (20%)
<£10,000	1 (5%)
£10,000-29,000	3 (15%)
£30,000-49,000	2 (10%)

£50,000-69,000	5 (25%)
£70,000-100,000	3 (15%)
>£200,000	2 (10%)
Ethnicity, <i>n</i> (%)	
White British	15 (75%)
Black British	1 (5%)
Asian British	2 (20%)
Other	2 (10%)

Note: Mean time since trauma = mean number of days post-trauma at the time of the interview. RTA= road traffic accident. SD = standard deviation. M= mean. Mdn= median.

Table 3.2

Participant Trauma Characteristics

Parent pseudonym	Parent interviewed	Parent age	Child age	Child gender	Trauma experienced	Days since trauma	Parent involved in event	UCLA-RI severity Score (Parent report)	UCLA-RI severity Score (Child report)
Elsie	Mother	25	6	Female	Acute medical emergency	18	Yes	20 ^{M,1}	0
Muhammad	Father	42	8	Female	RTA	32	No	1	18
Isaac	Father	42	15	Male	Near-drowning	69	No	5	6
Megan	Mother	45	14	Female	Fall from elevation	38	No	6	23 ^P
Grace	Mother	40	6	Male	Acute medical emergency	92	Yes	6	N/A
Cajsa	Mother	45	11	Female	RTA	33	No	4	18
Luca	Father	49	7	Female	Fall from elevation	25	No	4	6
Gwen	Mother	45	16	Male	Assault	48	No	42 ^M	10

Violet	Mother	40	9	Male	RTA	55	No	7	20 ^P
Annabelle	Mother	44	11	Male	RTA	23	No	17	20
Eliza	Mother	29	13	Male	RTA	10	No	17	20 ^{M,1}
Leah	Mother	42	8	Female	Fall from elevation	80	No	6	10
Martha	Mother	42	14	Male	RTA	25	No	4	6
Anna	Mother	42	12	Female	Acute medical emergency	17	Yes	8	13
Reuben	Father	44	9	Male	RTA	28	No	27 ^{P,1}	13
Louis	Father	50	11	Male	Sports injury	23	Yes	7	2
Ivy	Mother	41	6	Male	RTA	98	Yes	5	14
Harriet	Mother	37	10	Male	Fall from elevation	53	No	2	4
Erin	Mother	49	9	Female	Fall from elevation	11	Yes	0	0
Freya	Mother	39	13	Male	Acute medical emergency	42	No	3	3

Note: UCLA-RI= UCLA Posttraumatic Stress Disorder Reaction Index, parent and child report, PTSD overall severity score reported. N/A = data unavailable as parent did not complete or refused for child to take part. Parent involved in the event refers to whether or not the parent was directly

involved in or witnessed the child's traumatic event. ^M meets criteria for likely PTSD diagnosis using UCLA-RI. ^P meets criteria for partial PTSD diagnosis using UCLA-RI. ¹ Time since trauma less than 4 weeks therefore duration criterion cannot be applied in this case. RTA = road traffic accident.

situations. Parents advocated a positive interpretation of the trauma by positively reframing the event and encouraging children to feel lucky as the event could have been worse.

We're gonna do a little bit of road safety... I said to him... "I'm gonna be you [and] we're gonna cross the road and you're gonna be the parent and we're gonna cross the road together" and he said "what happens if I get you run over?" and I said "you won't get me run over dear" (Annabelle, mother, 44 years)

He had to be taken to a specialist hospital by helicopter...and although being air lifted to hospital following a car accident is not cool at all, being in a helicopter certainly is. So he's the first one out of all of us that's done [it], so it's another sort of half positive out of a negative.... [So I'm] just trying to adapt my approach to his personality the best [I] can [and] making the most out of a bad situation. (Reuben, father, 44 years)

Despite these supportive strategies, parents also described considerable helplessness in caring for their child, particularly during lengthy hospital stays as their child required medical attention that they personally could not provide. To manage feelings of helplessness, parents tried to be actively involved in their children's medical treatment and after-care, for example by purchasing medical equipment to monitor their child's health at home.

[A friend] told me about this pixel meter... [so] I went to see a nurse...and she gave it to us ... I feel like I have at least something to measure if he needs more oxygen or not so I feel like at least I have something because, yeah, when he got home from hospital I was thinking well how would I know? (Grace, mother, 40 years)

Returning to normal. Many parents attempted to continue their family's pre-trauma routines to encourage their child's emotional and physical recovery through physical activity. Accommodating children's post-trauma difficulties and distress was often time limited and parents gradually encouraged children to resume their normal activities. Notably, many parents simultaneously struggled to reinstate pre-trauma routines because of their own anxiety that their child may experience future harm, as seen in the following section.

[We're] just trying to be normal and try and not to baby him too much, to sort of try and encourage him to do things a bit more on his own but not wanting to push it too much, you know, it's still sort of quite soon after. (Gwen, mother, 45 years)

Encouragement of trauma-related discussions was not universal and several

parents advocated cognitive and behavioural avoidant coping strategies. Parents removed their child from contact with trauma reminders, which were thought to hinder recovery, and encouraged children to forget the event.

It was very difficult for me because I didn't want to upset him in one way, he'd already been hurt... I did say "why did you let go of mummy's hand?" and after that I didn't ask [that was] the only one time I asked ... I said to him "now be a child and try to forget about it...what has happened, happened, let's move on from it." (Ivy, mother, 41 years)

Some parents reported avoiding discussion of the trauma to prevent their child becoming distressed. Discussion of the trauma was thought to be unnecessary and potentially harmful as it would prevent their child moving on from the event or strengthen their trauma memories.

I don't think she talk about [it], she did not talk about it a lot about the accident and I don't want to ask her either, I'm afraid that will brought back some terrible memory, so I did not ask her. (Muhammad, father, 42 years)

In these circumstances, if the trauma was discussed it was done in a factual, perfunctory manner, with conversation focused on the child's physical recovery. As a result, some parents were unaware whether their child was experiencing post-trauma distress.

He ask me like "Mummy is it better to live or die?" ...but I think with me I was a bit upset so I didn't really talk about like "how do you feel Daniel?" Well I did ask him like "are you OK?" but I didn't really emotionally ask it ... and I didn't really want to remind him too much of it afterwards... we wanted to just carry on as normal and not to get him upset or worried too much. (Grace, mother, 40 years)

We'll talk about the whole situation and what he completely remembers he'll tell us what he remembers like riding in the road...he'll talk about things happening in the hospital like "I hated the neck brace" that he had to have on and all sorts of things like that... he hasn't really spoke about [his feelings] to be honest.... that's not something that we have actually spoke about its more like the situation, rather than how he feels about it. (Eliza, mother, 29 years)

One assumption held by parents was that their child would feel able to initiate a discussion of the event and their associated distress if needed, despite parental avoidance of trauma related discussions. If children did not broach the subject, they were considered to be coping well.

I would say he's just moved on ...he's not going on about it... it's not as if we were sitting down to [ask] "are you OK after your accident?" and all that stuff...and he is the sort of boy who if it was on his mind would talk to us. (Louis, father, 50 years)

Guarding. Children were considered vulnerable post-trauma and parents expressed significant concerns that their child could re-experience serious illness or injury. Parents were vigilant of their child's physical symptoms, such as headaches or breathlessness, and encouraged others to be observant of symptoms.

It was particularly difficult for parents to be apart from their child post-trauma, which contributed to their struggle to resume their family's pre-trauma routines. Some parents implemented significant changes to their child's daily routine to prevent future illness or injury. Children often persuaded their parents to allow them to resume activities parents now considered risky, and parents coped with their anxiety by checking on children frequently.

I'm still worried, you know, I think I drove her mad really, sort of following her round and saying "you can't do this, you can't do that, you know be careful with what you're doing, do you need pain killers?" ... I'm finding it difficult to let her do things that she did before without worrying... [and] it was just difficult to have her away from me really. (Megan, mother, 45 years)

Perceptions and Impact of Medical Treatment

Most parents reported that their child had received good quality medical treatment from EDs and were treated quickly and professionally. Where present, perceived problems in medical care, including misdiagnosis and limited or insensitive communication about medical procedures, contributed to parents' anxiety and perceptions of children as vulnerable and needing future protection.

We were told, which was actually incorrect, that she didn't have any bleeds on the brain... I think that happening has made me more nervous because I'm thinking "well if they've got something wrong once, you know, they could be wrong again or it could be worse than we're thinking". (Megan, mother, 45 years)

On discharge, many parents reported not receiving information about their child's physical recovery and it was difficult to access follow-up appointments to confirm their progress. This also contributed to parental anxiety and feelings of helplessness as parents felt uncertain of what to expect during their child's recovery and or of whether symptoms were normal. Ideally, parents would have preferred to receive information about their child's physical recovery in-person by a doctor upon discharge;

information from leaflets or the internet was not considered useful.

We haven't been explained to personally what to look out for... we're having to totally guess. So that's what scared us, we don't know what we're looking out for...I think that's the only thing they could have done different, they could have physically spoke to us and explained what to look out for. (Eliza, mother, 29 years)

Perceptions of Psychological Treatment and Support

Several parents reported that they and their children received little emotional support from medical staff in EDs, despite their visible distress. Parents described a lack of information regarding how to provide emotional support to their children post-trauma, and a need for information about what emotional changes could be expected in their child, advice to support coping, and information on how to access formal psychological treatment if needed. Most parents did not investigate children's emotional responses following trauma or coping strategies online as information from the internet was often considered unreliable.

I guess maybe just having the kind of written information, because you do eventually get round to sitting and reading it... I [would've] been more alert to...whether she was more emotionally up and down or whether she was a bit more clingy than usual. (Leah, mother, 42 years)

What we always didn't get in particular was like somebody to come and talk about it...they had lots of people doing their job very, very well and I suppose you could say well "servicing" him, making sure he has meds when he has to do it, making sure he's in his bed comfortably, and so telling him that does he need a shower. I think what we didn't get was that sort of emotional support. (Reuben, father, 44 years)

At the time of the interview, no child had received formal psychological treatment following the trauma. Several parents were uncertain how to access psychological treatment should their child need it. Parents felt that psychological treatment sought via the GP would be difficult to access and preferred to approach friends or relatives for advice if their child experienced significant post-trauma difficulties.

Interviewer: If she was sort of emotionally finding it a bit difficult... do you know where you'd go to get help [to] support her?

Mother: No, no I don't. I think I'd start with the GP, but that's a bit sort of protracted system. Yeah, I don't know where I'd go to get someone who's an expert in that field and get some sort of immediate help. (Anna, mother, 42 years)

Parents reported interest in formal psychological support post-trauma, either in the form of a support group for parents with children exposed to similar traumas or one-to-one counselling for parents. Apprehension about taking additional time off work, reluctance to receive advice from an unknown third party, and concerns that counselling would be an additional stressor and potentially hinder the family's recovery influenced parents' receptiveness to psychological support.

Like a support network of people in similar incidents where you can just sit down and have a coffee and a chat and just talk about it and...explain your side of it, like a support group maybe... that then helps the others in understanding the way they may be feeling...they then start realising that maybe they're not on their own but there's support out there and there are other people living what you're living. (Eliza, mother, 29 years)

Impact of the Trauma on the Parent

Parents experienced significant distress following the trauma. Where parents perceived ED treatment to be problematic, this appeared to be a considerable factor in parental helplessness with parents feeling unable to competently care for their child as a result. Parents reported blaming themselves or feeling blamed by others for not protecting their child or delaying their child's medical treatment. To cope with feelings of blame, parents normalised their mistake.

You know the line of questioning from most people you can see the undertone of it could be "this is the first time it's happened? How come you didn't know?" ...So yeah I think well maybe I should have known, but then I do think well God I'm not bloody perfect and I can't do everything. (Anna, mother, 42 years)

Following the traumatic event, parents often experienced considerable stress having to care for their child's additional needs whilst managing normal daily activities. Parental stress increased when workplaces were inflexible about their need to take time off. Parents were concerned about the impact of their child's hospital stay and recovery on their family's finances, and highlighted the lack of government assistance available.

There's no support network there when it comes to financial things for children having accidents for parents that both work... there isn't anything from a government side of things that can temporarily help you out...although you need to be with your children [in hospital], you've also got that bit in the back of your head saying well you need to work, you need to have money coming into the house because you don't get any help while they're in hospital. (Violet, mother, 40 years)

Parents used several strategies to cope with the trauma and their distress, including normalising their post-trauma feelings, relaxation, and prayer. Parents often found the support they offered to their children, such as spending more time together, helpful to their own coping. Avoidance based coping strategies were also used, including reported suppressing thoughts about the event by focusing on other activities, and avoiding discussing the event with others.

We don't want to talk to friends anyway [as] this seems to bring up, bring back the poor memory...my wife and I don't want to talk a lot...I tell her to improve her driving skill, yeah, that's all ... this [is a] bad thing, we don't want to talk about it. (Muhammad, father, 42 years)

Parents felt that social support was readily available, and valued both practical and emotional aspects. Support from parents' workplaces included easy access to psychological treatment if desired and understanding about the need to take time off.

My brother came out of work early and he was like "don't worry about the kids...we'll pick them up from school, we'll give them tea, you just be there [in hospital] with David... everything in the background of the household was just totally taken care of. (Eliza, mother, 29 years)

Concurrently, social support was occasionally experienced as an additional stressor, as frequent visitors and constant contact from concerned well-wishers was overwhelming.

[It was] draining... honestly, there were so many people coming in and out and in and out...even though it was lovely to see all these people... I was getting so drained talking [about the accident] over and over again and my son had to listen to it over and over again. (Ivy, mother, 41 years)

Child PTSD and parental responses

Three children were found to meet criteria for a likely PTSD diagnosis and three children met criteria for a partial diagnosis at the time of the interview (see Table 3.2). Children who met PTSD criteria were not more likely to be admitted as an inpatient or have a significantly greater number of injuries than children who did not meet PTSD criteria. Similarities and differences in parenting responses for children who did and did not meet PTSD criteria were examined. No evidence of differences was found between parents of children who met PTSD criteria and parents of children who did not meet PTSD criteria in terms of the warm support they offered their child, with both groups offering similar amounts of reassurance, confidence building activities and opportunities to discuss the trauma. Similarly, parents in both groups were not found to

differ markedly in their advocacy of discussion avoidance. For example, parents in both groups believed that, despite parental avoidance of trauma-related discussions, their child would feel able to approach them and initiate a discussion of the event and their associated distress if needed. When children, both with and without likely PTSD, did not broach the subject, they were considered to be coping well. Notably, parents of children who met PTSD criteria more consistently reported concerns that their child could re-experience future illness or injury and implemented significant changes to their child's routine as a protective strategy. Parents of children who met PTSD criteria also reported significant difficulties in resuming their family's pre-trauma routines due to their concerns about their child's wellbeing post-trauma when compared to parents of children who did not meet PTSD criteria. However, given the small number of parent-child dyads in each group and the fact that three children who met PTSD criteria were assessed less than four weeks post-trauma and therefore the duration criterion cannot be applied, these findings should be interpreted with caution.

Discussion

Many children experience traumatic events and parents' responses can influence their child's psychological recovery (Scheeringa & Zeanah, 2001), yet parental experiences of caring for their child post-trauma are understudied. We identified five themes related to parents' views of their child's coping and the supportive strategies parents used, perceptions of medical and psychological treatment, and the impact of the trauma on parents. Parents identified several strategies they used to support their child post-trauma, including warm support, efforts to resume normal routines, advocacy of avoidance, and attempts to protect children from future harm. However, such strategies appeared to be heavily influenced by parents' own feelings of helplessness and anxiety following the event. Parental responses were also influenced by their perceptions of care from EDs; poor care or limited information about child recovery contributed to parents' anxiety and difficulty resuming normal routines.

Parents attempted to support their child post-trauma in several warm, positive ways including offering reassurance and encouraging discussions about the event and their child's feelings. This is consistent with previous investigations which have found that parents attempt to support their children by helping them to process the event and express their feelings post-trauma (Alisic et al., 2012; Al-Mashat, Amundson, Buchanan, & Westwood, 2006; Moscardino, Axia, Scrimin, & Capello, 2007). Parental

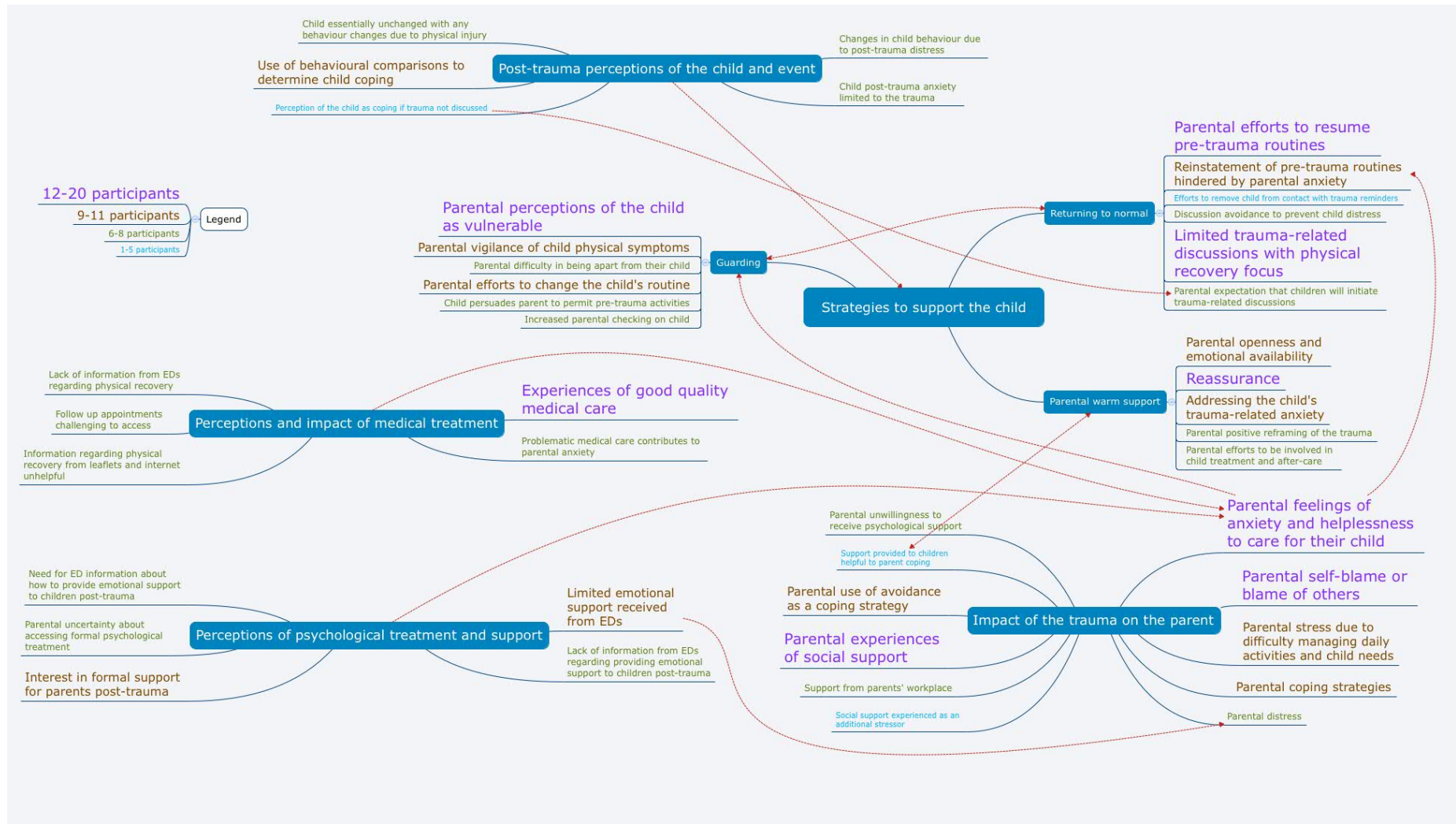


Figure 3.1. Visual representation of themes and sub-themes.

warmth and emotional support may positively influence child adjustment as high levels of parental support post-trauma are associated with fewer child PTSS (Bokszezanin, 2008). More specifically, parent-child discussions about the trauma may facilitate child adjustment by providing children with an opportunity to reappraise the event and have misconceptions corrected (Fivush, Hazzard, McDermott Sales, Sarfati, & Brown, 2003; Salmon & Bryant, 2002). However, it should be noted that greater parental sensitivity has been found to be associated with higher levels of child PTSS two years post-trauma (Scheeringa, Myers, Putnam, & Zeanah, 2015) and the role of parental sensitivity and warmth on child adjustment post-trauma remains somewhat unclear (Williamson, Creswell, Fearon, et al., in submission).

At the same time, several parents promoted avoidance-based coping strategies, including thought suppression and discussion avoidance. This strategy has not been reported in previous qualitative investigations of parental responses following child trauma exposure (Alisic et al., 2012; van Wesel, Boeije, Alisic, & Drost, 2012). The present study used telephone interviews which may increase perceptions of anonymity (Greenfield, Midanik, & Rogers, 2000) and may have facilitated disclosure of particular responses. As such, parental advocacy of avoidance warrants consideration in future research. The use of avoidance strategies may be potentially maladaptive as child cognitive avoidance and parental advocacy of avoidance have been linked with child PTSD severity (Ehlers et al., 2003; Gil-Rivas & Kilmer, 2013). However, it may also be entirely appropriate if children are themselves experiencing minimal distress. For some parents, avoidant coping was a consequence of their own distress, which was notably strong even where parents did not witness the trauma themselves (Hiller et al., 2016). Parent and child PTSS have been found to be associated with each other (Leen-Feldner et al., 2013) and parents use of avoidance in their own coping may negatively impact on child adjustment by modelling maladaptive strategies. Some parents held the assumption that their child would initiate discussions if needed, which may not be valid; existing research demonstrates that parental awareness of child PTSS is often low (Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007).

Parents reported reinstating their child's pre-trauma routines as a supportive strategy. This is in line with previous qualitative research that has found that parents resume normal routines in an effort to support child recovery (Alisic et al., 2012; Hafstad et al., 2012). Some existing research indicates resuming routines is important for child recovery (Boyce, 1981; Foy, 1992), although this association has not always

been observed (Prinstein & Greca, 1996). At the same time, many parents experienced significant difficulty allowing their children to resume pre-trauma routines due to concerns that their child could re-experience serious illness or injury. In keeping with previous research, children were considered particularly vulnerable post-trauma (Moscardino et al., 2007) and parents attempted to preserve their child's wellbeing by closely monitoring them and implementing changes to their routines. This response was particularly marked in parents of children who met criteria for PTSD. Such parental behaviours could be described as overprotective and may reflect parents own hyperarousal in response to the trauma (Bailham & Joseph, 2003; Price, 2013). Overprotection is thought to play a key role in child anxiety aetiology (McLeod, Wood, & Weisz, 2007) as this behaviour restricts child autonomy development and augments perceived vulnerability to threat (Chorpita & Barlow, 1998; Scheeringa & Zeanah, 2001; Wood, 2006), and is significantly associated with child PTSS (Williamson, Creswell, Fearon, et al., in submission). A perceived lack of information from EDs about their child's recovery contributed to parents' anxiety about their child's physical wellbeing, which is consistent with the limited available literature (Smith & Daughtrey, 2000). Effective communication with parents in EDs may benefit families post-trauma as the provision of information to parents of in-patient children is associated with reduced parental stress and better parent-child interactions (Davidson et al., 2007; Melnyk, Crean, Feinstein, Fairbanks, & Alpert-Gillis, 2007).

In terms of psychological adjustment, no emotional support or advice to facilitate child coping was routinely available to study families. This is notable as 15% of children in the present study scored as likely to have a PTSD diagnosis on the UCLA-RI, consistent with rates found in similar samples (Davidson et al., 2007). As trauma exposure requiring hospital admission poses significant risk of child PTSD (Hiller et al., 2016), these findings suggest a need for early psychological interventions and trauma-informed ED care, including the assessment of trauma-specific distress and family needs post-trauma (Kazak et al., 2005). Future research should consider the role of medical staff in the sensitive delivery of information regarding children's physical and psychological recovery on discharge, including psycho-education about common reactions and coping strategies to improve family adjustment post-trauma.

This study has several limitations. We studied families of children exposed to a wide range of single-incident, physical traumas, but findings may not be generalisable to children exposed to chronic trauma or events not associated with physical injury.

Moreover, the majority of parents interviewed were mothers, and fathers and other caregivers were not well represented. Furthermore, families were recruited from a comparatively low-risk, Western context and the present findings may not apply to other environments without further investigation. Despite these limitations, the results contribute to the literature in several ways. First, this study expands on the limited research into parental perspectives after child trauma exposure (Alisic et al., 2012) and provides insight into the experiences and challenges faced by parents, as well as the strategies used to support child recovery, post-trauma. Second, these findings illustrate how treatment of children in EDs may influence parents' perceptions of their child and impact the parental support provided. Finally, this research highlights the formal information and guidance desired by parents following child trauma which could ultimately improve child and family coping.

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Data sharing statement

No additional data available.

Competing interest statement

All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf and declare: authors had financial support from an ESRC grant and NIHR Research Professorship for the submitted work; no financial relationships with any organisations that might have an interest in the submitted work in the previous three years; no other relationships or activities that could appear to have influenced the submitted work.

Chapter 4 Paper 3: Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services

Manuscript under review for publication at *Journal of Child and Adolescent Trauma*.

Williamson, V., Creswell, C., Butler, I., Christie, H., Halligan, S. (in submission).

Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services. *Journal of Child and Adolescent Trauma*.

Paper 2 provided insight into parental experiences of supporting children following single incident trauma, based on a non-treatment seeking sample. In contrast, paper 3 describes a qualitative exploration of parents' experiences of providing care for their child following trauma exposure in cases where children were experiencing clinically significant levels of post-traumatic distress and had been referred for psychological treatment. Parents' perspectives of psychological treatment and suggested improvements to the formal support available for families following child trauma exposure are also discussed. This study originally aimed to recruit families from Child and Adolescent Mental Health Services. However, significant difficulties were experienced in recruiting participants from this avenue alone; therefore, families were also recruited from Child Bereavement, Trauma and Emotional Wellbeing Service (CHUMS), a charitable organisation which provides psychological treatment to children post-trauma.

Statement of Authorship

This declaration concerns the article entitled:									
<i>Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services</i>									
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Candidate's contribution to the paper (detailed, and also given as a percentage)	<p>The candidate contributed to/ considerably contributed to/predominantly executed the...</p> <p>Victoria Williamson made considerable contributions to the conception and design of the study (50%). Victoria Williamson predominantly contributed to the execution of the experimental work of this study, including the recruitment of participants, data collection and analysis (95%). The presentation of data in journal format was predominantly executed by Victoria Williamson (95%).</p>								
Statement from Candidate	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature.								
Signed						Date			

Parental experiences of supporting children with clinically significant post-traumatic
distress: A qualitative study of families accessing psychological services

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Abstract

Objective: Parents are often children's main source of support post-trauma, yet parents' experiences of supporting children with a trauma related psychological disorder have been underexplored. The aim of this study was to investigate the experiences of parents in providing support to their child following trauma exposure in cases where children are experiencing clinically significant levels of post-traumatic distress.

Method: Semi-structured qualitative interviews were conducted with parents whose child was exposed to a traumatic event and referred for psychological treatment (N=6). Interviews were analysed using thematic analysis.

Results: Parents reported feeling considerable anxiety and helplessness in coping with their child's post-traumatic distress. Avoidance of trauma reminders and discussions of the event were encouraged due to parental concerns that non-avoidant approaches may worsen children's post-trauma difficulties. Nonetheless, parents were often sensitive to their child's distress and offered reassurance and other forms of support. Many barriers existed to accessing psychological treatment, and perceptions of inadequate guidance and support from therapists on supporting child adjustment contributed to parental distress.

Conclusions: The results illustrate the strategies used and challenges faced by parents in supporting their child post-trauma. These findings highlight the need for more accessible psychological treatment and may assist mental health professionals in providing acceptable guidance to parents following child trauma.

Key words: post-traumatic stress disorder; trauma; childhood; parenting; qualitative

A significant number of children develop psychological adjustment difficulties such as post-traumatic stress symptoms (PTSS) following exposure to trauma (de Vries et al., 1999; Meiser-Stedman, Yule, Dalgleish, Smith, & Glucksman, 2006; Stallard, Salter, & Velleman, 2004). Parents are often children's main source of support following a trauma and it is thought that parents' responses can reduce or exacerbate their child's vulnerability to PTSS (Scheering & Zeanah, 2001). Several post-trauma parenting behaviours have been found to be significantly associated with the onset of childhood post-traumatic stress disorder (PTSD), including a lack of parental support (Boksyczanin, 2008; Vernberg, Silverman, La Greca, & Prinstein, 1996) and parental overprotection (Henry, Tolan, & Gorman-Smith, 2004; Williamson, Creswell, Fearon, et al., in submission). Conversely, providing children with opportunities to talk about the trauma and feel understood may be beneficial (Stallard, Velleman, & Baldwin 2001).

Existing research has provided in depth exploration of parental experiences of providing support to children after single-incident trauma (Alisic, Boeijs, Jongmans, & Kleber, 2012; Williamson, Creswell, Butler, et al., 2016). These qualitative studies have highlighted that parents are sensitive to their child's post-trauma distress and offer children reassurance and opportunities to discuss the trauma. Furthermore, efforts were made to resume children's pre-trauma routines as a strategy to support child adjustment; however, parental anxiety that their child may re-experience illness or injury could inhibit the reinstatement of such routines.

However, little is known about the experiences and challenges faced by parents in supporting a child who is experiencing clinically significant symptoms and post-traumatic distress following trauma exposure. Supporting a child who is experiencing serious or persistent post-traumatic distress may be uniquely challenging. For example, worries about causing actual harm to the child by reminding them of the event are expressed by some parents in existing qualitative studies (Williamson, Creswell, Butler, et al., 2016), but may be much more significant where children are visibly struggling to cope. Moreover, having a child experience a life-threatening event can have direct psychological consequences for the parent, even when they themselves were not directly exposed to the trauma, and parental post-traumatic distress is greater where the child is more seriously impacted (Hiller et al., 2016). Parental distress and PTSD symptoms have been found to be associated with poorer child adjustment following trauma exposure (Alisic, Jongmans, van Wesel, & Kleber, 2011; de Vries et al., 1999;

Kelley et al., 2010; Nugent, Ostrowski, Christopher, & Delahanty, 2007). Parental post-trauma distress stemming from child trauma exposure may cause parents to be less available to their child, lead to the promotion of maladaptive coping strategies, or cause parental difficulties in discussing the event which may obstruct child recovery (Nugent et al., 2007; Schwartz, Dohrenwend, & Levav, 1994)

The limited available evidence suggests that only a small minority of children with PTSD access treatment (de Vries et al., 1999), and parents are likely to be an important determinant of this. Moreover, parental involvement in child psychotherapy may not only influence drop-out rates but parents may also foster child adjustment by helping children to practice therapeutic coping strategies at home (Chowdhury & Pancha, 2011; Cobham, McDermott, Haslam, & Sanders, 2016; Schneider, Grilli, & Schneider, 2013). However, parental perceptions of and engagement with their child's psychological treatment post-trauma have received limited research attention (e.g., Salloum, Scheeringa, Cohen, & Storch, 2014). A better understanding of parents' views of providing support to a child with psychological adjustment difficulties following a traumatic event and views about psychological services may enable mental health professionals to provide advice and support that is acceptable and meaningful to parents following child trauma.

In order to gain a better understanding of parental experiences of child trauma and posttraumatic distress, we used in depth, qualitative methods to explore: parents' experiences of caring for a child who is experiencing clinically significant distress following trauma exposure; the impact of child trauma and PTSS on the family more broadly; and experiences of accessing and engaging with psychological treatment for their child post-trauma.

Method

The study received approval from the National Health Service Research Ethics Committee (14/SC/0043) and University of Bath Department of Psychology Ethics Committee (15-218). All participants provided informed consent (parent) or assent (child) prior to participation.

Participants

Six parents and seven children who experienced a traumatic event were recruited following the child's attendance at urban Child and Adolescent Mental Health Services (CAMHS) in two National Health Service Trusts in England, or at the Child

Bereavement, Trauma and Emotional Wellbeing Service (CHUMS), a charitable organisation providing psychological treatment to children following trauma exposure. In one case, two children in a single family had been exposed to the traumatic event and both children and their parent participated in this study. The age range of participating children was 6-16 years. The clinical care team contacted potentially eligible parents of children who received treatment from CAMHS or CHUMS following a traumatic event, and parents were contacted by researchers with further information following parental permission. The following exclusion criteria were used: existing organic brain damage or intellectual disability in the child that precludes mainstream schooling; parent or child inability to speak English; child registered with child protection services; and concerns that the respondent parent was the perpetrator of the trauma. Families were given a £10 voucher following their participation in the study. Of the 16 families approached, 10 did not participate in the study. Parents who did not participate either became uncontactable or reported that family members were uncomfortable with their participation.

Assessments

Parents were invited to complete an in-depth, qualitative interview via telephone as the main outcome measure. In addition, in order to describe the sample, participating parents and their children completed questionnaire assessments of their psychological adjustment, either by post or online. In two cases the child did not complete the self-report questionnaires due to parental refusal.

Qualitative data generation and analysis. The interview topic guide was developed in line with the research questions and literature regarding child and parent experiences and behaviours post-trauma. Following the collection of background information, parents were prompted to respond to interview topics related to their thoughts, feelings and behaviours following the trauma; concerns about their child; their experiences of providing support for their child post-trauma; and perceptions of their child's psychological treatment. Suggestions for improvements to the support available to parents, children or families post-trauma were also discussed.

Respondent validation was conducted to increase the reliability and accuracy of the data through participant feedback (Lincoln & Guba, 1985; Torrance, 2012). Parents were provided with a summary of the key interview findings and preliminary interpretations following the interview. All input from participants regarding the interview summary was treated as additional data.

All interviews were transcribed verbatim and transcripts were entered into NVivo 10 (www.qsrinternational.com/products_nvivo.aspx) to facilitate analysis. Qualitative analysis of the interview transcripts was carried out using thematic analysis (Braun & Clarke, 2006). Transcripts were read multiple times to facilitate familiarity with the data and coding was conducted systematically across the data set by the primary researcher (V.W.) Potential themes were then abstracted from the codes (Patton, 1980) with themes being representative of repeated patterns of meaning across the data set (Braun & Clarke, 2006). Every theme was examined for coherence through an examination of all coded text segments for each candidate theme, and consideration of whether themes accurately and precisely reflect the meanings evident across the data (Attride-Stirling, 2001; Braun & Clarke, 2006). To ensure the credibility of the analysis, reflective memos were written during data analysis by the primary researcher to keep a record of early interpretations of the data and relationships between concepts (Birks, Chapman, & Francis, 2008; Whittemore, Chase, & Mandle, 2001). A reflexive journal was kept throughout data collection and analysis in an effort to recognise the influence of the researcher's prior experiences, thoughts, and assumptions and prevent premature or biased interpretations of the data (Mason, 2002; Morrow, 2005).

As it is possible for different interpretations to be made during data analysis depending on the beliefs and knowledge background of the researcher, to ensure criticality and integrity, all transcripts, codes and emergent themes were reviewed by two authors (V.W. & H.C.) for coherence and agreement (Whittemore et al., 2001). Any disagreements were resolved following in-depth discussion and re-examination of the data set. Peer debriefing was conducted to enhance the trustworthiness and credibility of the analysis (Morrow, 2005). Peer debriefing took place with regular meetings held with co-authors (I.B. & S.H.) for feedback regarding the interpretation of the data and possible instances of bias. Anonymised participant comments are provided to illustrate our findings and all participants have been assigned a pseudonym.

Questionnaire measures of child PTSD symptoms. Parents completed the parent version of the UCLA Posttraumatic Stress Disorder Reaction Index (UCLA-RI; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998) in relation to their child's exposure to trauma and subsequent PTSS. The child and adolescent versions of the UCLA-RI (Pynoos, et al., 1998) were administered to young people in the study in order to obtain their own reports of PTSD symptoms. The UCLA-RI is a commonly used measure of child and adolescent PTSS and has been found to correlate highly with a

diagnosis of PTSD (McDermott & Cvitanovich, 2000; Steinberg et al., 2013), and to show good internal consistency and test-retest reliability (Steinberg et al., 2013; Steinberg, Brymer, Decker, & Pynoos, 2004). Symptom frequencies on the UCLA-RI are rated on 5-point Likert scales ranging from 0 (“never”) to 4 (“most of the time”), with symptoms scored as present if rated 3 (“much of the time”) or greater. If criterion A is met, children who meet criteria B, C, and D are given a likely “full” diagnosis of PTSD, and children who meet criteria for only two symptom subcategories are given a “partial” PTSD diagnosis (Steinberg et al., 2004). All parents completed the parent report version of the UCLA-RI in relation to their child’s recent experience. In addition, children completed symptom scales (part 2) of the UCLA-RI child report version (Pynoos et al., 1998), providing their own reports of PTSS relating to the event that led to their CAMHS/CHUMS attendance.

Results

Of our final sample, 71% were mothers and the mean age of the parent was 41.3 years (range= 34-55 years). 71% of the participating children were male. The mean age of the children was 11.4 years (range=8-15 years). Four children were classified as having a likely PTSD diagnosis using the UCLA-RI and one child met criteria for a partial diagnosis. Demographic and trauma characteristics are described in Table 4.1 and Table 4.2.

Results of Thematic Analysis

Four key themes emerged from the data, reflecting parental experiences and efforts to support their child following trauma exposure. Additional quotations are provided in Appendix 7 to illustrate themes and sub-themes, with a visual representation of themes and sub-themes presented in Figure 4.1.

Post-trauma perceptions of the child. The majority of parents described their children as having profoundly changed following the trauma and parents understanding of how their child was coping after the event was often informed by their behavioural cues. Many parents were deeply concerned by their child’s change in behaviour post trauma, and four parents viewed their child as having experienced profoundly negative changes in their personality or demeanour. However, in two cases where children experienced single, isolated manifestations of post-traumatic distress (e.g., vomiting, nightmares), children were considered by parents as essentially unchanged.

She had problems with her behaviour...she went really quiet, which is not like her as she's very chatty, she can talk so much, but she went really quiet. She didn't want to be around people... She does mental checks like when we get into the car she will be like "right have we got this, that, the other" ...and then if her brother is being really loud and naughty she will say to him "you don't want us to have another crash happen do you? You need to let [mum] concentrate" ... she shouldn't really be like that, so I just really was concerned... and I'm like oh God she shouldn't be thinking like that because she's only a child. (Lois, mother, 39 years)

I've always said that on the surface at least she's essentially the same person she always has been but with this added sort of horrible thing that's going on in the background for her. (Aubrey, mother, 46 years)

Parents compared their child's pre and post-trauma behaviours or compared their post-trauma behaviours to the behaviour of other children to determine whether their child was functioning 'normally.' Parents additionally sought others' (e.g., teachers) impressions of their child's coping for external validation.

They were both just normal happy kids before...I think Charlie has to work at being sort of a bit upbeat about things now, it seems like it's a bit of an effort for him to be happy about things. That's sort of how he comes across, his whole demeanour is sort of quite down...he doesn't have as much enthusiasm to do things as he did before, he doesn't have the same sort of confidence and drive that he did before. (Patrick, father, 38 years)

In many cases, a considerable amount of time had passed since the trauma and parents reported that their children had since made gradual improvements in their behaviour and recovery.

I think he's anyway much better than before because straight after that situation that happened and I can remember he was very, very angry...when it was bath time or something he'd kick the wall and he was very angry, very frustrated every single day...now he's more calm and he changed his behaviour definitely. We've still got some problems but it's not like before, he's much better now, I think...it's because the time and [also] I think because he feels secure in his family. (Nora, mother, 34 years)

Strategies to support the child. Parents were very sensitive to their child's post-trauma distress and reported supporting their child with strategies that were informed largely by intuition and instinct. Five parents were directly exposed to the traumatic event and experienced significant physical injuries and psychological distress as a result. Despite this, parents went to considerable lengths to support their child, putting their child's needs before their own.

Table 4.1

Participant Demographic Information

Demographic characteristic	Sample statistics (n=7)
Child mean age, <i>M(SD)</i>	11.4 (2.3 SD)
Parent mean age, <i>M(SD)</i>	41.3 (7.8 SD)
Parent marital status, <i>n(%)</i>	
Married	5 (71.4%)
Cohabiting	2 (28.6%)
Mean number of traumatic events experienced (Parent report), <i>M(SD)</i>	1.7 (1.5 SD)
Mean total UCLA-RI Score (Parent report), <i>M(SD)</i>	29.2 (15.8 SD)
Mean income, <i>n(%)</i>	
£20,000-39,000	2 (28.6%)
£40,000-59,000	1 (14.3%)
£50,000-69,000	1 (14.3%)
£100,000-119,000	1 (14.3%)
>£200,000	1 (14.3%)
Ethnicity, <i>n(%)</i>	
White British	6 (85.7%)
Asian British	1 (14.3%)

Note: UCLA-RI= UCLA Posttraumatic Stress Disorder Reaction Index, PTSD overall severity score reported. SD = standard deviation.

Table 4.2

Participant Trauma Characteristics

Parent pseudonym	Parent interviewed	Parent age	Child age	Child gender	Trauma experienced	Months since trauma	UCLA-RI severity Score (Parent report)	UCLA-RI severity Score (Child report)
Nora	Mother	34	11	Male	Witnessed domestic violence	48	40 ^M	N/A
Aubrey	Mother	46	13	Female	Traumatic medical procedure	24	23 ^P	56 ^M
Amala	Mother	55	12	Male	Physical assault	6	47 ^M	N/A
Patrick	Father	38	15	Male	RTA	36	39 ^M	32 ^M
Patrick	Father	38	12	Male	RTA	36	N/A	8
Francis	Mother	36	11	Male	Witnessed domestic violence	2	22 ^P	10
Lois	Mother	39	6	Female	RTA	24	4	13

Note: UCLA-RI= UCLA Posttraumatic Stress Disorder Reaction Index, PTSD overall severity score reported. N/A = data unavailable as parent did not complete or parent refused for child to take part. RTA = road traffic accident. ^M meets criteria for likely PTSD diagnosis using UCLA-RI. ^P meets criteria for partial PTSD diagnosis using UCLA-RI.

We just couldn't get the help that we needed at the time that we needed it. So my husband and I were terribly ignorant psychiatric nurses and the things that we did, we did either by instinct or we read stuff off Google. (Amala, mother, 55 years)

You just have to put on a brave face and it's just you're not reassured yourself and you have to convince them, it's just you're being strong for them really...you do tell them these sort of things don't happen often, you just tell them that [and] you have to convince yourself as well. (Lois, mother, 39 years)

The following sub-themes were identified.

Scaffolding discussions of the trauma and associated distress. Parents encouraged their children to feel that they were available if they wanted to talk about the event or their feelings. Some parents reported that their child would bring up the traumatic event unexpectedly in conversation and this was often interpreted as a sign that their child was emotionally ready to discuss the trauma. Parents would respond by actively listening to and engaging with their child to facilitate a familial atmosphere of openness where trauma-related discussions were welcome.

I think my initial reaction as a parent to something like this would have been to try keep the kids remote from it, you know, to protect them... but because both the kids were there, they both saw what happened... so we couldn't shelter our kids from any of that, we couldn't do that as parents. So from very early on we talked about it and we talked about it a lot. If the kids wanted to talk about it at all, didn't matter what time it was or if we were having a conversation about something else, it wasn't off limits. (Patrick, father, 38 years)

Parents made several efforts to facilitate their child's discussion of their post-trauma distress, including teaching their children words to better articulate their anxiety, encouraging their children to use analogies to facilitate discussion of their feelings, and holding trauma-related discussions in environments where their child felt safe. Parents also encouraged their children to feel that it was normal to experience distress following the trauma.

He felt safe in the car and driving forwards...he always opened up, he always got something off his chest every single day in the car, it was one of the biggest therapies we did with him...we talked about all the things that had happened to him as far as he could say them and how he felt as far as he could articulate it. He did find that very, very hard to put names on feelings...so we tried to do things by analogy by saying you know "I sometimes felt blah blah blah was it like that?" ...so we got out as much as we could. He talked a lot about fear and everything that made him frightened ... we taught him the phrase 'hyper-vigilant.' (Amala, mother, 55 years)

Parental warm support. Children often experienced considerable anxiety post-trauma and parents supported their children by offering reassurance, encouraging children to feel safe, and normalising the trauma. To address children's anxiety, parents also encouraged their child to face their fears through exposure to anxiety provoking situations and organised confidence building activities to foster their child's self-esteem. Parents also promoted a positive perspective of the traumatic event, for example that the doctor who inadvertently contributed to the child's traumatic medical procedure may not make the same mistake in future with another patient.

We just I think tried to make him feel first of all safe, whether that was physically or emotionally safe...we used to try and make him feel very safe in the house and very safe with us and we would try and make him calm by whatever means, even things like massage or lighting or we bought him a kitten, anything. (Amala, mother, 55 years)

However, depending on the circumstances, some parents simultaneously emphasised that the family were not entirely out of danger and encouraged children to be vigilant and prepared for the worst case scenario. Such mixed messages appeared to stem in part from parents own anxiety and concerns post-trauma.

He would come up to me and say "what happens if [the perpetrator is] not sentenced? What happens if he's not found guilty?" Then I said "we will have to run, we will have to leave the school here and we will have to actually just up and go and leave everything here" ... that's the reality actually. I do realise that if he's not sentenced erm then we'll have to leave [home] and we will have to leave the schools again. (Francis, mother, 36 years)

To facilitate their child's recovery, parents also made concerted efforts to resume their child's pre-trauma routines which was thought to be helpful and reassuring for their child. As seen in this extract, parents often went to considerable lengths to bring a sense of normality to their child's daily life, often at significant personal cost due to parents own physical restrictions and injuries. However, in several cases parents reported difficulty resuming pre-trauma routines due to their child's ongoing post-traumatic distress and significant symptoms.

We tried to stick to their routine... and make sure that I was there and then try and make myself go to the school, so I would get a taxi to the school and collect them...just to offer them reassurance I would collect them and then get the taxi back, so I started doing that so it's been a gradual thing but they've been much better. (Lois, mother, 39 years)

Several children held negative appraisals, such as self-blame, following the trauma. Parents often viewed these negative appraisals as unhelpful to their child's

coping and attempted to support their children by encouraging them to accept what had happened or reassuring them that they could not have prevented the event.

[David] blamed himself for not checking the bag...he was telling me once "I should have checked the bag and I should have known that the knife was there" ... [he thinks] he should have checked the bag and all that could be avoided. "No" I said "no, no, no, no...that's not your fault, it was supposed to happen on that day and that's it, that's what happened" I said "no, no that that is definitely not your fault and just stop thinking about it." (Francis, mother, 36 years)

Encouraging avoidance. Parental encouragement of trauma-related discussions was not universal and several parents promoted both cognitive and behavioural avoidance strategies to cope with the trauma. Parents removed their child from contact with trauma reminders as these were thought to be harmful and to contribute to their child's distress.

We make some [changes] because like he can't watch...some programs on TV, you know, if it's something on TV[or] he hears on the news like about bad accident like someone kill anyone or sometimes like the parent kill their children or something like that or about child abuse or something like that, we always switch off the program or just change the channel quickly because I don't want him to see that because I think [it will] scare him, he can remember what happened or maybe he can think [about it] again. (Nora, mother, 34 years)

In particular, one parent attempted to 'override' or fade their child's trauma-related memories by removing their child from the scene of the trauma and attempting to foster particularly positive memories in the weeks following the event.

I think [David] was supposed to start [psychological treatment] in April...[but] I wanted to take them away on holiday to my family...I think we flew [overseas] on the fifth of May and that kind of delayed... the beginning of the sessions. But that point I thought...it will do them more good if they would spend time with my family there and with me and [my spouse] so we flew all of us [overseas where] they have only nice, happy memories...I took them out of this town and we went to the place where we have lots of happy memories...once they came back it was a bit faded the memories because [of] all the happy things and everything that happened [overseas] with them for these four, three weeks...it's probably like override what ever happened on that day.(Francis, mother, 36 years)

A number of parents reported avoiding discussion of the event to prevent their child becoming distressed or reminding them of the traumatic event. Parents avoided talking about the trauma until their child initiated the conversation and encouraged other family members to adopt the same approach. Such avoidance of discussion

reflected parents own concerns that they did not know whether discussing the trauma with their child would improve or worsen their child's post-trauma difficulties; avoidance of discussion seemed the safer choice faced with this uncertainty.

[My sister] never spoke with Lewis again because she was asking him about [it] and I said to her "if Lewis doesn't mention then I think it's maybe better [if you] don't speak...if he wants to say something you can talk with him, but you don't have to start this subject" because it's difficult, I don't know what is better for him[to] just talk about what happened, or just don't talk and then it will be forgot about... maybe he never forgot about it, yeah maybe if I start to talk about what happen maybe he [will] think [about it] much more, maybe this will be worse for [him]... I'm not sure. (Nora, mother, 34 years)

Perception of and involvement in treatment sought for post-trauma

difficulties. Psychological treatment was described as difficult to access in many cases and parents often reported that their persistence was instrumental to their child receiving treatment for their post-trauma difficulties. Barriers to accessing psychological services included: parents being unaware of available services; not being automatically referred after voicing concerns to the GP about their child's adjustment difficulties; extensive waiting times for assessments; or infrequent therapy sessions. As seen in the following extract, it was thought that a physician would responded to their child's physical injury but they did not appreciate the emotional consequences of the traumatic event. Parents' experience of difficulties in accessing treatment for their child in one case resulted in parental concerns that they may be over-reacting in response to their child's post-trauma difficulties, contributing to parental anxiety and feelings of uncertainty about how to best support their child.

I went to the doctors about their behaviour...several times ... and then I went to another GP and then he automatically referred me ... and I was like why couldn't you have given me this earlier? It has taken them...eight months...I'm not sure whether because there wasn't anything physically wrong with them that this didn't get noticed, because it was all emotional and I don't think they see the emotional part ... I think if it was something physical the doctors would've said "oh, OK, yeah, yeah, yeah." (Francis, mother, 36 years)

The appointments haven't been all that frequent so sometimes we might go and they'll say "oh we'll see you in a month's time" and you think to yourself God, you know, another month of this? ... It feels like it's very long and drawn out. (Aubrey, mother 46 years)

Once psychological treatment was accessed, a majority of parents perceived the treatment received as helpful in addressing their child's adjustment difficulties and providing an opportunity for their child to discuss the trauma or receive coping advice.

In a few cases, parents reported that the treatment their child had received was unhelpful and did not lead to an improvement in their symptoms. Parents believed that the treatment their child received was ineffective as it was too invasive or did not address what parents considered to be the root cause of their child's adjustment difficulties. In such cases, different treatment plans were discussed with therapists and an alternative treatment approach was adopted to better meet their child's needs.

The first therapist tried CBT, but he was beyond CBT. The questions were too invasive for him and made him worse. So he needed very, very gentle therapy from someone who would just connect with him and get his trust and during that fortnight...he had I think five or six session... which just somehow got him grounded. (Amala, mother, 55 years)

Parents were often very involved and engaged in the treatment itself, participating in children's treatment activities and attending family therapy sessions, which provided insight into their child's feelings and distress following the trauma. In one case where several family members were involved in the traumatic event, family therapy was considered particularly helpful as this provided the opportunity for parents and children to share their post-trauma distress. This fostered a sense of familial support and acceptance that was thought to be instrumental for recovery. Child treatment that facilitated trauma-related discussions also provided parents with further details regarding the traumatic experience and its sequelae which deepened parents' understanding of their child's traumatic experience.

I didn't realise until [the clinician] came along... I thought I actually knew how she was feeling but I didn't really which is quite sad for me as a parent, not knowing how she actually really felt, because I thought she told me a lot of things but to be honest she'd bottled quite a lot of her feelings up. There were certain things that she'd noticed that I hadn't even noticed as well during the [accident] so it was only...after [she] got referred...and they did [a] sequencing activity, it was only then that she actually said well [the driver] had a necklace on with a [star] on which I didn't even know, so there's things that [she] saw that I didn't see. (Francis, mother, 36 years)

Parents felt considerable anxiety about how to best support their child's recovery and receiving confirmation from expert therapists that the strategies they were using were effective was a source of reassurance for parents. Where therapists provided guidance to parents on activities to do with their children in-between therapy sessions, this helped parents to feel actively involved in their child's psychological recovery and reduced parental feelings of helplessness and anxiety about how to best care for their child. Taken together, children's psychological treatment was often considered a

valuable source of support and guidance for parents, helping them to provide and be confident in delivering support to their child post-trauma.

[The clinician] came out to see us and that... was extremely valuable because again as a parent [you're] trying to just fudge through it really as best you can and it was helpful [to] me personally to have someone come out that was experienced at this sort of thing and actually say "do you know what? You're doing alright, you're doing everything that you can feasibly do and you're coping with it as best you can." (Patrick, father, 38 years)

[She] had four sessions and each session you'd see that it was helping and [she] actually wrote a story as well...which I read to [her] before [she] went to bed so then [she] could make sense of it in [her] head as well ...all these little activities we did; I wouldn't have thought of it. (Lois, mother, 39 years)

Conversely, in some cases parents held expectations that they would be given advice and strategies about how they could best support their child post-trauma and expressed disappointment in the process from their perspective when such guidance was not received. Similarly, parents experienced frustration when their child's school teachers or SENCO were reportedly aware of their child's psychological adjustment difficulties but did not volunteer advice or a referral to facilitate access to formal psychological services.

It wasn't so helpful for me because, you know, I think will be more helpful if [the clinician gave me] some clue of what can I do or...how can I talk with him...she didn't say anything like that and I was a little disappointed...she just send a letter with some website pages or books that I can read about the children...but not any help...because if you read the books it's just very ...abstract information, you can't say oh it's good for your child because every child is different and have different experience, and I think... she was sat with Lewis and with me and she knows the situation she can help much better because she knows the child, but books it's not the same. (Nora, mother, 34 years)

Overall, parents described a desire for information about what child behaviours or responses to look out for as signs of poor post-trauma coping and advice to help them better understand their child's experience. Some parents reported acute "crisis points" where their child became severely symptomatic for several weeks and parents felt unable to provide the support that their child urgently needed. As urgent support from psychological services was reportedly inaccessible, parents viewed Emergency Departments to be their only available option at these times. Prior to such crisis points, preparation of what symptoms could be expected and how to best support child coping was desired. During periods of acute symptoms, parents reported needing additional, more flexible support from professionals.

The most the single most useful thing...is somebody on the phone... to talk to daily if needs be to say you know... "We can't calm him down, what do we do? Is this normal for someone who's got PTSD?" ...so I would say a helpline for us because we needed to help him and it was it was 24-hour care. (Amala, mother, 55 years)

Impact of the trauma on the parent. All parents reported experiencing significant distress post-trauma. Parents reported feelings of blame towards themselves or others for causing the event. Parents also blamed themselves for being unaware of their child's symptoms or for their perceived contribution to their adjustment difficulties. For example, a parent who reacted to their child's trauma with considerable fear and horror blamed themselves for potentially contributing to their child's distress at the time of the event and their subsequent development of PTSD.

I think if [her father] had been there [instead] when she was unwell...he is much better at dealing with blood and when people are ill he doesn't panic, it frightens me, it doesn't frighten him... if [she does have] PTSD then I think that that me screaming out for help...almost certainly will have not been helpful and that [he] would probably have just...said "don't worry, somebody's coming." ... I think he just would have been calmer and then she would have been calmer. (Aubrey, mother, 46 years)

To cope with their own feelings, several parents used avoidance based strategies. Parents avoided trauma reminders and locations associated with positive pre-trauma memories as such places evoked distress due to appraisals of permanent familial change. Additionally, parents avoided discussing the event outside of the family due to concerns that others would blame them for the trauma.

We've got some friends here but actually ... they don't know my life and Lewis' life actually because we never talk about it with other people...because I don't like to speak with someone who knows me because I think, you know, they treat me or they look at me [differently]...maybe they say I'm not good mum...for me it's difficult to speak about this situation because sometimes I think that people can say "oh it's your fault." (Nora, mother, 34 years)

In order to cope with the trauma, parents often had to come to terms with and accept their own physical injuries and limitations. Resuming their own pre-trauma routine and activities was thought to be helpful in coping with the event. Parents also experienced positive psychological changes following the trauma, including greater awareness of and sympathy for others' distress; greater appreciation of their child; and gratitude that their and their child's traumatic event and/or injuries were not worse.

I think because I had to go to work and I think because I had [the children] to look after, that's what actually kept me going I think. (Francis, mother 36 years)

Before something like this happens to you, you know, you see something on the news and for about two or three minutes you think "oh that's terrible, absolutely terrible" and then you carry on. But when something like that does actually happen to you...you've got a complete empathy for other people that it's happened to because you know how they feel, you know actually what it means for them to go through it. (Patrick, father, 38 years)

Many parents reported that counselling was instrumental to their recovery as it provided an opportunity to voice their concerns in private, away from their children, to someone who would not judge them.

I had counselling from work and then I had CBT... it helped to talk to an outsider that didn't know me and wasn't going to judge me... so she just helped me accept things and she listened to me and then I'd tell her how I was worried about I'm not gonna have a job left and, you know, I didn't want the kids to know. (Lois, mother, 39 years)

However, whilst parents were in contact with several agencies, including GPs, CAMHS and social workers, to arrange counselling for their child, some parents were not referred to psychological services themselves despite their own significant post-trauma distress.

I would have definitely loved some sessions and [psychological treatment] for [my spouse] something professional, on a professional level, because he is the one who is actually affected more than probably me. I could have used probably the help, some sort of [help] just to talk through these things... I didn't have anything...If somebody would give us a hint, not a hint, [but] kind of like an address or phone number of an organisation who could help us actually in a professional way then I'd say that would be helpful. (Francis, mother, 36 years)

Parents reported receiving social support from their spouse, extended family and friends and most felt that such support was readily available if needed. Social support included practical care to help parents cope with their physical injuries post-trauma, frequent visits or messages from friends, prayers, and reassurance that their child would recover.

My mum has always been there all the time, she's been there from day one... and my mum's been praying for a good outcome and things like that...[and] I've had friends that have supported us... they've offered to cook, not that I've needed it, but it's just being there. Someone just picks up the phone and asks you how you are, you know, bringing the crossword round to keep you

entertained... so you know who your friends are and the people that are there when you need them. (Lois, mother, 39 years)

At the same time, social support could also be somewhat unhelpful. Some parents reported that their family had received a great deal of social support immediately post-trauma; however, this support lasted only a few weeks at which point families felt they were expected to have moved on from the event.

I think the difficulty is that when these things happen you tend to get a massive influx of people within the first probably month, well probably less than that, the first two or three weeks. Everybody is really sympathetic, they want help, they want to tell you how sorry they are and but that does drop away really, really quickly and people kind of then move on with their lives and they expect you to do the same and if you're in a situation where you can't actually move on then that's difficult. (Patrick, father, 38 years)

Child PTSD and parental responses

Four children were found to meet criteria for a likely PTSD diagnosis and one child met criteria for a partial diagnosis at the time of the interview (see Table 4.2). Two children were not found to meet criteria for a likely PTSD diagnosis. It is notable that in the one case where two children in a single family participated, one child was found to meet criteria for likely PTSD while the other was not.

The similarities and differences in parenting responses and the strategies used to support child recovery were explored. Of the parents whose children met criteria for likely PTSD, two encouraged the use of avoidance based coping. The remaining parents, as well as the parents whose children did not meet PTSD criteria, encouraged and facilitated trauma-related discussions. No evidence of differences was found between parents of children with and without likely PTSD in terms of their offers of reassurance, engagement in confidence building exercises, and attempts to address children's negative appraisals. For example, parents in both groups encouraged their child to accept what had happened and offered reassurance that they could not have prevented the event. Parents in both groups also promoted a positive perspective of the traumatic event to their children to a similar degree. Notably, parents of children who met PTSD criteria more consistently reported difficulty in resuming their child's pre-trauma routines often due to their child's ongoing post-traumatic distress and symptoms. This difficulty resuming normal routines did not appear to be due to length of time since trauma, as parents whose children had recently been exposed to trauma reported similar difficulties to those where the traumatic event occurred several years

previously (range = 2-48 months). In the case of the family where one child met criteria for likely PTSD and the other child did not, no evidence of differences in parental warmth, encouragement of trauma-related discussions, reinstatement of pre-trauma routines or access of psychological treatment was found. This parent reported encouraging open trauma-related discussions with both of their children and both children received psychological treatment post-trauma. The parent attributed the differences in child coping to the fact that the child who did not meet PTSD criteria was younger at the time of the trauma and may have therefore been less affected. This is in keeping with previous qualitative research which has found similar parental beliefs about child younger age as a protective factor for child coping (Williamson, Creswell, Butler, et al., 2016).

The relationship between time since trauma and parental responses was also examined. No evidence of differences was found between parents whose children were exposed to a traumatic event more recently (<6 months) and parents whose children had experienced a traumatic event more than six months ago in terms of parental warmth, scaffolding of trauma-related discussions, or efforts to continue pre-trauma routines. Taken together, the only marked difference in parental responses was the experience of difficulty in resuming normal routines in cases where children met criteria for likely PTSD due to child distress. However, these findings should be interpreted with caution given the very small numbers of children in both the likely PTSD and non-PTSD groups.

Discussion

The aim of the present study was to investigate the experiences of parents in caring for their child following trauma exposure and explore parental perspectives of their child's post-trauma psychological treatment in order to inform clinical practice. The narratives uncovered a key theme relating to strategies used by parents to support their children. Parents attempted to support their children using three core strategies: promoting avoidant coping, scaffolding trauma-related discussions, and warmth. Such parental strategies were not found to differ as a function of time since trauma. Underlying these strategies of support were feelings of considerable parental anxiety and helplessness to adequately and appropriately care for their child's significant post-trauma distress. Contributing to parents' distress were the considerable barriers faced in accessing psychological treatment for their child, as well as perceptions that the

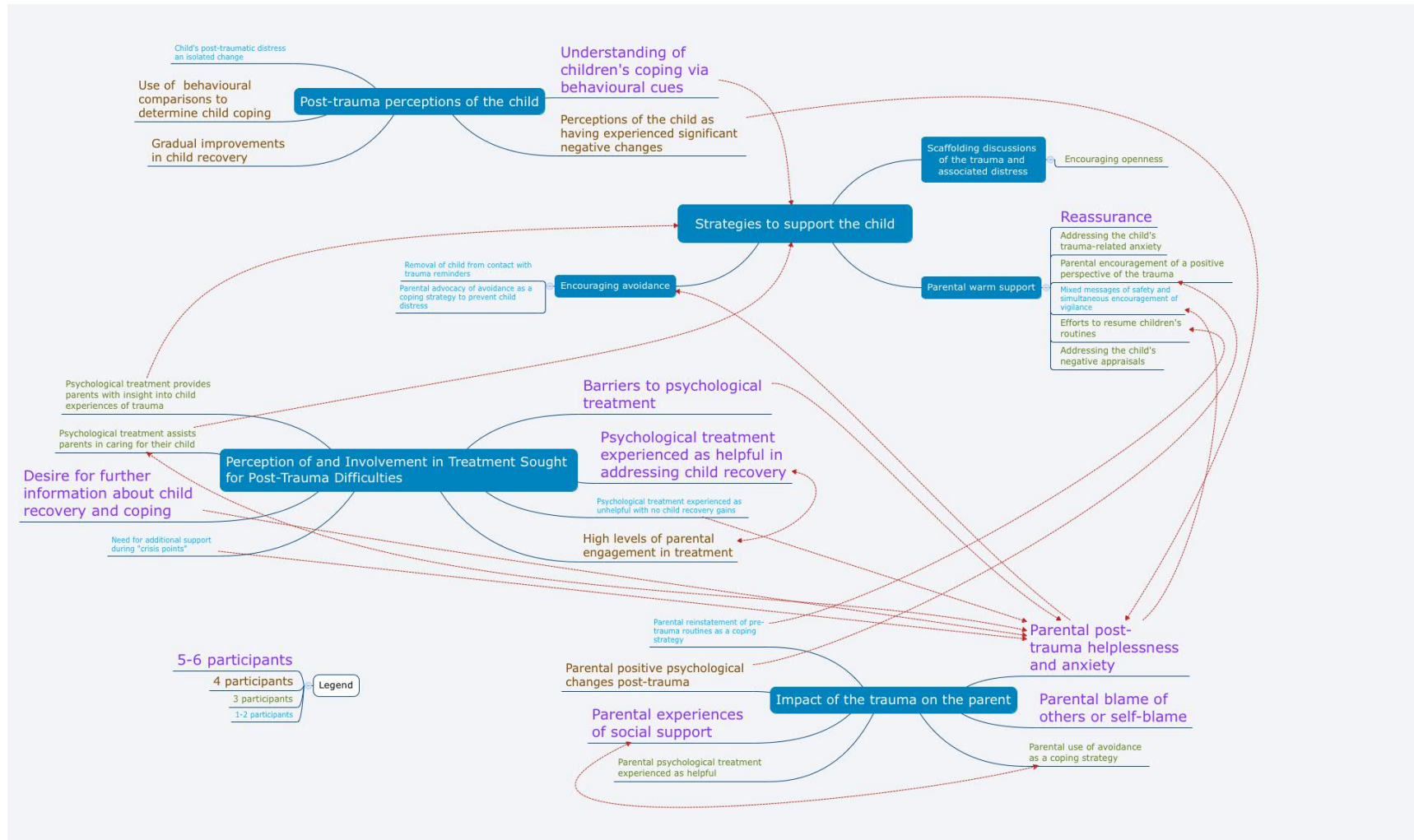


Figure 4.1. Visual representation of themes and sub-themes.

provision of guidance and support from therapists about how to best support their child were often inadequate. Given the challenges faced in accessing and engaging with psychological treatment, it is important to critically evaluate the support strategies used by parents to foster child adjustment.

Parents' anxiety contributed towards the use and advocacy of avoidant coping strategies in several cases. Their uncertainty as to whether discussion of the trauma may worsen their child's post-trauma difficulties meant discussions of the event with the child were often limited. Following a traumatic event, such reactions are common and understandable; however current theories also emphasise the role of avoidance in the development and maintenance of PTSD (Ehlers & Clark, 2000). Previous research has found parental attitudes favouring avoidant coping to be associated with child PTSD severity at 6-months post-trauma (Ehlers, Mayou, & Bryant, 2003) and children's use of maladaptive cognitive strategies, including thought suppression, are a leading risk factor for PTSD (Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). Whilst the efficacy of particular coping strategies may depend on a variety of factors, including time since the trauma, appraisals of the event and other available resources (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Dempsey, 2002; Joseph, Williams & Yule, 1997), parental encouragement of avoidant-based strategies to children engaged in psychological treatment post-trauma represents an important consideration and target for future investigations.

Parents also made efforts to support their children in a number of warm, positive ways, including offering reassurance, reinstating pre-trauma routines, and going to considerable lengths to make their children feel safe. This use of warm support is consistent with the support strategies reportedly used by parents of children who have attended EDs following trauma exposure (Williamson, Creswell, Butler, et al., 2016). As high levels of parental support are associated with fewer child PTSD symptoms (e.g., Boksztzanin, 2008), such supportive parental responses may contribute positively to the child's adjustment.

Several parents also encouraged their child to discuss the traumatic event and attempted to facilitate their child's disclosure of their post-trauma distress. Trauma-related discussions between parents and their child has been found to be associated with fewer child PTSD symptoms as such discussions may lead to an improvement in the coherency and completeness of the child's trauma memory (Fivush et al., 2003; Salmon & Bryant, 2002). This may positively influence child adjustment as an incomplete,

poorly elaborated trauma memory is thought to be associated with the development and maintenance of PTSD (Ehlers & Clark, 2000). Parents also sought to address children's potentially maladaptive appraisals of blame and promoted a positive perspective of the event. As maladaptive cognitions contribute to the continuation of child PTSD symptoms (Meiser-Stedman, Dalgleish, Glucksman, Yule, & Smith, 2009; Meiser-Stedman, Dalgleish, Smith, Yule, & Glucksman, 2007), such positive reframing coping advice may support functional reappraisals in children by rectifying misinterpretations of the trauma, thus leading to more adaptive coping following a traumatic event (Kassam-Adams & Fein, 2003; Kilmer & Gil-Rivas, 2010; Salmon & Bryant, 2002).

Parents often had to overcome a number of barriers in order to access psychological treatment for their child and felt that their persistent involvement was instrumental to attaining treatment. This parental experience of formal psychological services being difficult to access is consistent with the limited literature on the subject (Coyne et al., 2015). It is notable that a number of parents did not receive a referral to psychological treatment to address their own post-trauma distress, despite contact with several health professionals to arrange treatment for their child. As parental PTSD is predictive of child PTSD (Morris, Gabert-Quillen, & Delahanty, 2012; Spell et al., 2008), this may have clinical implications not only for child adjustment but also for the engagement of families in psychological services or interventions post-trauma.

Several expectations about psychological services were held, including the parental belief that they would receive guidance about how to best support their child. However, parents reported feeling unprepared about how to manage their child's symptoms, particularly when symptoms became acute, and additional support and information from psychological services was desired. This suggests a need for the delivery of additional guidance and flexible support for families from mental health professionals where children are experiencing particularly acute, crisis episodes following trauma exposure. It is also notable that parents of children who met criteria for PTSD often reported significant difficulties in resuming their child's pre-trauma routine due to their child's post-traumatic distress and symptoms which should be considered by mental health professionals when providing guidance and support to families post-trauma.

As parents experienced significant anxiety about how to best care for their children and support their psychological recovery, receiving confirmation from a therapist that their supportive strategies would promote child adjustment was also

particularly useful. Recent research has extolled the importance of parental engagement in child psychological treatment post-trauma (Cobham et al., 2016) and parent and child satisfaction with services is strongly associated with treatment completion and functional improvement more generally (Garland, Haine, & Boxmeyer, 2007; Oruche, Downs, Holloway, Draucker, & Aalsma, 2014; Ronzoni & Dogra, 2012). Therefore, clinical care and psychological interventions may be enhanced by the inclusion of targeted information and advice for families engaged with psychological services following child trauma exposure (see Table 4.3).

This study had several strengths and weaknesses. Among the strengths was the inclusion of parents of children who experienced a range of trauma types and the views of parents were collected after varying lengths of time post-trauma which allowed for the examination of parental experiences from diverse circumstances. The relatively small number of cases also allowed for in-depth analysis and thematic saturation was achieved (Crouch & McKenzie, 2006; Marshall, 1996). Among the weaknesses is the limited diversity of the sample and the recruitment of mostly mothers and future studies could include the perspectives of more male caregivers. Finally, all children recruited to this study accessed psychological treatment and this may exclude the views of parents whose children were not successful in accessing treatment for their post-trauma difficulties. This may be because the parents in the present study could have considered psychological treatment particularly valuable or were more able to seek formal support than families who did not access treatment for their child's post-trauma difficulties. Despite these limitations, the present study provides some of the first evidence of the strategies used by parents of children who accessed psychological treatment to support child adjustment post-trauma. The results expand on previous research examining parental experiences and strategies used to support children following EDs attendance after single-incident trauma exposure (Williamson, Creswell, Butler, et al., 2016) and provide insight into the parental perspectives of caring for a child with clinically significant post-trauma distress. Future research is needed to examine the psychological impact of such support strategies and the implications for child adjustment in families where the child is receiving formal psychological support. These findings also illustrate parents' expectations and experiences of their child's psychological treatment, including the significant difficulties faced in accessing psychological services following trauma. This suggests a need for not only more accessible psychological treatment but also the provision of targeted information and advice to parents which may help to

address their concerns and improve the overall family experience following trauma exposure.

Table 4.3

Guidance for mental health professionals

a	Parents experience significant anxiety about how to best care for their child and support their psychological recovery post-trauma.
b	Parents attempt to alleviate child anxiety post-trauma by offering reassurance, normalising the trauma, and initiating confidence building exercises.
c	Trauma-related discussion avoidance can stem from parental uncertainty whether discussing the trauma will improve or worsen their child's post-trauma difficulties. Avoidance of trauma-related discussions can be perceived as the safer option in such circumstances.
d	Several barriers to accessing psychological services post-trauma are reported, including: not being automatically referred after voicing concerns to the GP about their child's adjustment difficulties; extensive waiting times for assessments; or infrequent therapy sessions.
e	Parents expect to receive advice and strategies from clinicians about child responses that are indicative of poor coping post-trauma and how parents can best support their child's recovery.
f	During "crisis points" of acute child symptoms, additional, more flexible support is needed by parents from clinicians to support child coping.
g	Provision of guidance and reassurance from clinicians regarding child recovery reduces feelings of parental anxiety and helplessness.
h	Parents experience significant distress following child trauma exposure and few receive a referral to psychological services themselves, despite contact with several health professionals to arrange treatment for their child.
i	Parents of children who meet criteria for PTSD report significant difficulties in resuming their child's pre-trauma routines due to their child's post-traumatic distress and symptoms.

Note: GP = General Practitioner. PTSD = post-traumatic stress disorder.

Acknowledgements

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**Chapter 5 Paper 4: The Parental Responses to Child Experiences of Trauma
Inventory (PRCET): Development and validation**

Several trauma-specific features of parental support were identified in Papers 2 and 3, underlining the need for a validated measure of post-trauma parental responses. The aim of Paper 4 was to develop and conduct a preliminary investigation of an assessment measure of parental appraisals and behaviours post-trauma. The secondary aim of Paper 4 was to expand on the qualitative results of Papers 2 and 3 and examine further the core qualities of parental post-trauma support, as well as explore the relationship between child PTSD and parenting in a larger sample.

Statement of Authorship

This declaration concerns the article entitled:									
<i>The Parental Responses to Child Experiences of Trauma Inventory (PRCET): Development and validation</i>									
Publication status (tick one)									
Draft manuscript	X	Submitted		In review		Accepted		Published	
Publications details (reference)	Williamson, V., Creswell, C., Meiser-Stedman, R., Halligan, S (2016). <i>The Parental Responses to Child Experiences of Trauma Inventory (PRCET): Development and validation</i> . Manuscript prepared for publication.								
Candidate's contribution to the paper (detailed, and also given as a percentage)	<p>The candidate contributed to/ considerably contributed to/predominantly executed the...</p> <p>Victoria Williamson contributed to the conception and design of the study (10%). The data included in this paper was collated from four separate research studies. Victoria Williamson executed the data collection in one of the four included studies (100%). Victoria Williamson predominantly executed the analysis and interpretation of the data for this paper (95%). The presentation of the data in journal format was predominantly executed by Victoria Williamson (95%).</p>								
Statement from Candidate	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature.								
Signed						Date			

The Parental Responses to Child Experiences of Trauma Inventory (PRCET):
Development and validation

Abstract

Background: Parental responses following child trauma exposure have been found to be associated with child post-traumatic stress disorder (PTSD) symptoms, including parental overprotection and avoidance of trauma-related discussions. The significant role of parenting practices in child post-trauma recovery represents an important avenue for research and clinical practice and a valid, reliable measure of post-trauma parental responses is needed. The development and initial validation of the Parental Responses to Child Experiences of Trauma Inventory (PRCET), a measure of parent appraisals and behaviours following child trauma exposure, is presented.

Methods: The PRCET was administered to 226 parents whose child, aged 3-16 years, had experienced a traumatic event. Principal components analysis and principal axis factoring were conducted.

Results: The PRCET appraisal scale was found to have three factors: Appraisals of Permanent Change, Rumination and Appraisals of Blame. Analysis of the PRCET behaviour scale yielded five factors: Overprotection, Encouraging Behavioural Avoidance; Continuing Normal Routines, Encouragement of Trauma-Related Discussions, and Cognitive Avoidance. All factors showed good internal consistency, and convergent validity when compared to an existing measure of parental overprotection. The correlation of the PRCET factors with child PTSD symptoms suggests the factors are reliable.

Conclusions: The results of this preliminary analysis suggest that the PRCET is a reliable and valid tool for the assessment of parent's behaviours and appraisals following child trauma exposure.

Keywords: PTSD, parenting, trauma, child, appraisals, behaviour.

Exposure to traumatic events is common in childhood and can be associated with a range of adverse psychological outcomes, including post-traumatic stress disorder (PTSD; Moroz, 2005). Parents are often children's leading source of support following trauma exposure and previous research has found parent behaviours to be influential in children's psychological recovery following trauma (Williamson, Creswell, Fearon et al., 2016). Several post-trauma parenting behaviours have been found to be significantly associated with increased levels of child PTSD symptoms (PTSS), including parental overprotection (Boksztzanin, 2008; Henry, Tolan, & Gorman-Smith, 2004) and advocacy of avoidance (Ehlers, Mayou, & Bryant, 2003). For example, parental overprotection has been linked to increases in child anxiety more generally and may increase children's perceived vulnerability to threat (Chorpita & Barlow, 1998; Wood, 2006). Conversely, continuation of pre-trauma routines and parent-child discussion of the traumatic event are thought to be associated with fewer child PTSS (Fivush, Hazzard, McDermott Sales, Sarfati, & Brown, 2003; Pat-Horenczyk, Schiff, & Doppelt, 2006; Salmon & Bryant, 2002). Parent-child discussions of the trauma may improve the coherency of the child's trauma memory and provide the opportunity for the correction of misunderstandings or negative appraisals (Fivush, 1998; Salmon & Bryant, 2002). As previous research has found cognitive appraisals to be predictive of behaviours (e.g., de Hooge, 2014; Ferguson & Bibby, 2002), such post-trauma parental responses may be underpinned by particular appraisals. For example, maladaptive parent appraisals of their child as vulnerable following trauma exposure may potentially contribute to parental overprotection (Boksztzanin, 2008; Scheering & Zeanah, 2001; Thomasgard & Metz, 1997). Furthermore, parents' maladaptive post-trauma appraisals are likely to influence child adjustment and previous research has found parent appraisals of permanent change in the child to be associated with child PTSS (Morris, Lee, & Delahanty, 2013).

Given the potentially significant role of parent appraisals and behaviours in childhood PTSD, there is a need for valid, reliable assessments that measure parental responses following child trauma. However, until now good quality assessments to examine post-trauma parental responses have been lacking. The majority of questionnaires and interview schedules used in previous studies have not been specifically designed to assess post-trauma parenting appraisals and behaviours or non-validated measures have been used. Reliable assessment of parental post-trauma responses would not only further our understanding of the relationship between child

PTSD and parenting, but such parental responses also represent potential targets for intervention efforts to promote adaptive parenting following child trauma to promote child adjustment. Therefore, the goal of this current study was to develop and conduct a preliminary investigation of a questionnaire to assess parental cognitions and behaviours following child trauma.

This study describes the development of the Parental Responses to Child Experiences of Trauma Inventory (PRCET) and the refinement of the item pool using factor analysis. The PRCET was designed to measure parental cognitions and negative trauma-related appraisals, including rumination and perceptions of blame, as well as parenting practices, such as overprotection and efforts to continue pre-trauma routines. The convergent validity of the PRCET was explored in relation to an existing measure of parental overprotection. As cognitive appraisals are somewhat predictive of behaviours (de Hooze, 2014; Ferguson & Bibby, 2002) it was expected that parental appraisals would be related to reported behaviours; therefore, the relationship between the PRCET parental appraisal factors and the behaviour factors was explored. Given the association between particular parental responses, such as overprotection and advocacy of avoidance, and child PTSD symptoms (Bokszczanin, 2008; Morris et al., 2013), the associations between the PRCET sub-scales and child PTSS were examined.

Method

This research received approval from the National Health Service Research Ethics Committee (Berkshire B 14/SC/0043; Cambridge South 12/EE/0458, 13/EE/0262; and Oxford A 13/SC/0599 committees); University of Reading Ethics Committee (UREC 14/20); and the University of Bath Department of Psychology Research Ethics Committee (14-035; 15-218). Participants gave informed consent (parents) or assent (children).

Participants

Participants were parents of trauma exposed young people, drawn from five different samples as detailed below. For all samples, exclusion criteria included: intellectual disability that precludes mainstream schooling (including autism spectrum disorders); history of organic brain damage; currently presenting with self-harm behaviour or suicidal intent; caregiver or child inability to speak English; and child being under child protection services. Of the 226 participating parents, 86% were mothers and 10% were fathers (data regarding parent gender is missing in 9 cases,

4%). Of the children, 43% were female, with a mean age of 8.2 years (range=15.03 years). Trauma and demographic characteristics are described in Table 5.1.

PROTECT. Participants included 91 children, aged 6-13 years, and their parents or guardians, who were enrolled in a longitudinal study of parental responses to child experiences of trauma. Families were recruited for the study via Emergency Departments (EDs) following trauma exposure. Index traumas in this sample were road traffic accidents (44.4%), accidental injury (12.2%), acute medical emergency (8.9%), burns (2.2%), non-sexual assault (1.1%), animal attack (4.4%), falls from elevation (17.8%), and other (7.8%). Families were visited in their homes and completed measures on average four weeks following trauma exposure and only data from this first assessment were included in this study.

PROTECT – Qualitative. Participants included 26 parents or guardians of children, aged 6-16 years, who were recruited from EDs, Child and Adolescent Mental Health Services (CAMHS) or the Child Bereavement, Trauma and Emotional Wellbeing Service (CHUMS) following child trauma exposure. Index traumas in this sample were road traffic accidents (38.5%), accidental injury (3.8%), acute medical emergency (15.4%), non-sexual assault (7.7%), falls from elevation (19.2%), and other (15.4%). Measures were completed independently and submitted to the research team either by post or online.

PROSPECTS. Participants included 7 children, aged 9-16 years, and their parents or guardians, who participated in a pilot study investigating child PTSD treatment. Children were exposed to multiple traumatic events, including multiple assaults or sexual abuse. Children with a diagnosis of PTSD were recruited to this study through several means, including CAMHS, schools, Victim Support, the police, General Practitioners, and advertisements on the internet and in children's centres. Participants completed measures independently pre- and post-treatment and only pre-treatment data were included in this study.

PYCES. Participants included 102 children, aged 3-8 years, and their parents or guardians, who participated in a randomised clinical trial of trauma-focused cognitive behaviour therapy (TF-CBT). To be included in the study, children had to meet DSM-5 criteria for a PTSD diagnosis (American Psychiatric Association, 2013) and have experienced a discrete stressor, including a medical emergency or procedure, an accident, etc. Participants were recruited from Emergency Departments, CAMHS, schools, Victim Support agencies, the police, General Practitioners, and via

advertisements placed in doctors surgeries, children's centres, on the Internet and in local newspapers (Dalglish et al., 2015). Index traumas in this sample were road traffic accidents (12.7%), accidental injury (52.0%), acute medical emergency (11.8%), burns (10.8%), non-sexual assault (3.9%), sexual assault (1.0%), and other (6.9%). Measures were completed prior to treatment and only data from baseline assessments were included in this analysis.

Development of the PRCET

Co-authors initially developed the measure based on reviews of the literature, and a pilot project involving 40 parents and children who presented at Emergency Departments following a traumatic injury. Initial items were created to describe a broad range of cognitions and behaviours that could be reported by parents following child trauma exposure, and were added to and revised by co-authors who have significant expertise in the PTSD/anxiety and parenting fields.

Item format. The initial item set involved 78-items measuring parents' reactions to child trauma exposure, divided into two sub-scales: parent cognitive appraisals and parental behaviours. The cognitive appraisal scale consisted of 44 items rated on a 4-point Likert scale (0= Don't agree at all, 1= Agree slightly, 2= Agree quite a lot, 3= Agree completely). Appraisal items relate to parental post-trauma cognitions of blame, child vulnerability and beliefs of family or child permanent change. The behaviour scale consisted of 34 items, 11 of which were cast in positive terms (e.g., "I have tried not to change my child's usual routine since the event"), rated on a 4-point Likert scale (0= Not at all, 1= A little, 2= Some, 3= A lot). Behaviour items relate to parental post-trauma behaviours including overprotection, continuation of pre-trauma routines, encouragement of thought suppression, and avoidance of trauma related discussion or reminders. The 78-items initially included in the PRCET appraisal and behaviour scales can be found in Appendix 9.

Measures

UCLA-RI. The parent and child report versions of the UCLA Posttraumatic Stress Disorder Reaction Index (UCLA-RI, Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998) were used in the PROTECT and PROTECT-Qualitative studies (combined n=117) to assess child trauma exposure and PTSD symptoms (PTSS). The UCLA-RI is a commonly used self-report measure of PTSS and has been found to

Table 5.1

Demographic Characteristics

Demographic characteristic	<i>N</i>	Mean/Proportion
Child mean age	226	8.2 (3.1 SD) range 1.3-16
Mean UCLA-RI score (Parent report)	117	11.9 (11.8 SD)
Mean UCLA-RI score (Child report)	114	16.9 (13.2 SD)
Mean DIPA impairment score (Parent report)	102	2.9 (4.9 SD)
<i>Trauma type:</i>		
RTA	63	27.9%
Accidental Injury	65	28.8%
Acute medical emergency	24	10.6%
Burn	13	5.8%
Physical Assault	7	3.1%
Sexual Assault	1	0.4%
Fall	22	9.7%
Animal attack	4	1.8%
Multiple traumas	7	3.1%
Other	18	8.0%

Note: RTA = road traffic accident. SD = standard deviation. UCLA-RI= UCLA

Posttraumatic Stress Disorder Reaction Index, PTSD overall severity score reported.

DIPA= Diagnostic Infant and Preschool Assessment, symptom impairment score reported. Data missing for two cases regarding trauma exposure (n=224).

correlate highly with a diagnosis of PTSD (DSM-IV, American Psychiatric Association, 1994; McDermott & Cvitanovich, 2000).

DIPA. The Diagnostic Infant and Preschool Assessment (DIPA, Scheeringa & Haslett, 2010) PTSD module was used in the PYCES study (n=102) to assess parent's perceptions of their child's trauma exposure and PTSS in children aged 1-6 years. The DIPA was administered by semi-structured interview and is a psychometrically robust measure (Scheeringa & Haslett, 2010). The DIPA symptom impairment scores were used in the analysis.

Parental Overprotection. The 19-item Parental Overprotection measure (POS, Edwards, Rapee, & Kennedy, 2008) was used to measure parenting behaviours that restrict children's exposure to situations perceived to be threatening or harmful. Items on the POS are rated on a 5-point scale (0 = Not at all, to 4 = Very much), with a possible range of scores between 0-76. The POS was completed by the 91 participants of the PROTECT Study. The POS has been found to have strong test-retest reliability and good internal consistency for both mothers and fathers (Edwards et al., 2008). Notably, the OP scale was initially validated using a sample of parents of preschool children (Edwards, Rapee, & Kennedy, 2010); however, research by Clarke and colleagues (Clarke, Cooper, & Creswell, 2013) has shown the POS measure to be acceptable for use with parents of children in middle childhood. The scores on the POS measure have also been found to correlate significantly with observations of parental overprotection (Clarke et al., 2013; Edwards et al., 2008). In this study, high internal consistency for the POS was obtained ($\alpha=.919$).

Approach to Analysis

A comprehensive factor analytic strategy was used in order to reduce the number of items and explore the latent factor structure of the PRCET measure (Tinsley & Tinsley, 1987). Parent responses on the PRCET were combined across the PROTECT, PROTECT-Qualitative, PROSPECTS and PYCES samples, with factor analysis conducted separately on the PRCET appraisals and behaviour scales. Both principal components analysis (PCA) and an exploratory factor analysis (EFA) using principal axis factoring (PAF) were conducted to ensure interpretability. PCA was first conducted to provide an initial exploration of the patterns within the data. As PAF is the recommended approach when estimating the structure of the relationships between variables (Baglin, 2014; Matsunaga, 2010), PAF analysis was next conducted to define the underlying latent factors and generate factor scores (Fabrigar, Wegener, MacCallum,

& Strahan, 1999; Widaman, 1993; Williams, Onsman, & Brown, 2010). PAF was used to delineate the PRCET factors as it is thought to estimate factor loadings and factor correlations more realistically than PCA as it recognises the existence of random error introduced by measurement (Baglin, 2014). Consequently, PAF is less likely to produce inflated factor loadings or underestimate factor correlations (Fabrigar et al., 1999; Knäuper, Rabiau, Cohen, & Patriciu, 2004; Russell, 2002). An oblique rotation was chosen for both PCA and PAF analyses as correlations between factors were anticipated (Fabrigar et al., 1999). The number of factors to retain was based on several criteria: (a) a visual examination of the scree plot (Cattell, 1966); (b) parallel analysis using the Monte-Carlo Program (Horn, 1965; Watkins, 2008); (c) considerations regarding the meaning and interpretability of the factor model. Items that loaded more than 0.5 on a primary factor and less than 0.3 on remaining factors were retained (Matsunaga, 2010). The internal consistency of factors was examined using Cronbach Alpha, with the threshold of 0.7 used to indicate acceptable reliability (Nunnally, 1978).

Subsequent analyses were run based on factor scores to examine the validity and utility of the PRCET. As the PRCET sum scores were not normally distributed, non-parametric tests (e.g., Spearman's Rho correlations) were used when possible. To examine the relationship between the PRCET cognitive appraisals factors and behaviour factors, Spearman correlations between the factors were calculated. To examine the convergent validity of the PRCET, correlations between the PRCET sub-scales and scores on the POS were calculated. Finally, to examine the relationship between parenting responses and child PTSS, correlations between child PTSD symptoms, using the UCLA-RI severity score and DIPA symptom impairment score, and the PRCET sub-scales were calculated.

Results

Factor Analysis and Item Retention

Appraisal Scale factor analysis. The appraisals PRCET items were first submitted to a PCA. The Kaiser-Meyer-Olkin measure confirmed the sampling adequacy for the analysis ($KMO = .802$) and the Bartlett's test of sphericity $\chi^2(210) = 2180.5$ ($p < .0001$) suggested correlations between items were suitably large (Field, 2009). From the initial 44 items in the PRCET appraisals scale, 17 were removed due to poor factor loading. An examination of the scree plot indicated a three-factor model. The first factor explained 27.5% of the variance, with an additional 14% and 8.2% explained by the second and third factors respectively. The clustering of items on the

same factor suggests that the factors represent (a) Appraisals of Permanent Change (10 items; “Our family will never be the same again”) (b) Parental Rumination (10 items; “I ask myself over and over why this happened to my child”) (c) Appraisals of Blame for the Trauma (7 items; “Others blame me for what happened to my child”). PCA factors and item loadings can be found in Table 5.2. The Cronbach’s alphas were $\alpha = .892$ for Appraisals of Permanent Change; $\alpha = .894$ for Parental Rumination; and $\alpha = .860$ for Appraisals of Blame, indicating that all factors had good internal consistency (Nunnally, 1978).

The appraisal items were next subjected to a PAF. Items were retained which loaded onto a primary factor greater than 0.5 and less than 0.3 on secondary factors (see Table 5.3 for PAF item loadings). The KMO (.902) and Bartlett’s test ($X^2(378) = 3765.0$; $p < .0001$) confirmed the appropriateness of the analysis. Inspection of the scree plot and parallel analysis suggested that the Appraisals sub-scale items best fit a three-factor model. Following an examination of the retained items, the Appraisals of Permanent Change, Parental Rumination, and Appraisals of Blame for the trauma factors were replicated and were found to account for 36%, 11% and 9.3% of variance respectively.

The final Appraisals scale, based on the results of the PAF, contained 29 items. Appraisals of Permanent Change consisted of 13 items ($\alpha = .914$), Parental Rumination was made up of 10 items ($\alpha = .904$), and six items represented Appraisals of Blame ($\alpha = .856$). As seen in Table 5.3, all appraisal items loaded highly on the factors and the three factors correlated strongly with each other (all p values $< .001$, see Table 5.6).

Behaviour Scale factor analysis. PCA was first conducted on the behavioural scale items and the acceptability of this analysis was confirmed by the KMO (.802) and Bartlett’s test of sphericity ($X^2(210) = 2180.5$; $p < .0001$). A visual inspection of the scree plot suggested a five-factor model. The five-factor solution explained 65.3% of the variance cumulatively, with 27.5% of variance explained by the first factor, with 14.8%, 8.2%, 8.0% and 6.8% explained by the second, third, fourth and fifth factors respectively. Of the initial 34 items in the PRCET behaviour scale, 12 were removed due to poor loading on factors. The high factor loading of the retained items suggest that the factors describe (a) Encouraging Behavioural Avoidance (6 items, e.g., “I avoid places, people or activities that might remind my child of what happened”) (b) Continuing Normal Routines (4 items, e.g., “I’ve tried not to change my child’s usual

Table 5.2

PCA Factor Loadings of the PRCET Appraisals Scale

Items	Permanent Change	Rumination	Blame
29.Our family will not get back to the way we were before the event happened.	.813		
27.My child was so badly scarred by the frightening event that they won't get over it.	.793		
1.Our family will never be the same again.	.752		
18.If my child has any more stress it will seriously damage him/her	.732		
25.My child is always going to be anxious and upset now.	.730		
38.Our family cannot cope very well with stress now.	.727		
42.I keep wishing we could have the life we had before the event happened.	.695		
17.My child would not be able to deal with being reminded of what happened.	.671		
8.My child has been emotionally scarred by the frightening event.	.658		
12.My child is not going to be able to cope in the future now.	.620		
3.I keep thinking how it could have been even worse than it was.		.841	
2.I have to make sure I can protect my child all the time.		.798	
36.It is extremely upsetting to imagine how my child felt during the frightening event.		.793	

26.I keep on wishing that I could go back in time and stop the event from happening.	.751
40.I could not bear it if my child was ever hurt or threatened again.	.719
39.Anything could happen to my child when I am not around.	.670
15.I get upset or angry when I am reminded of what happened to my child.	.609
35.It's completely up to me to make sure that my child is safe.	.609
14.I ask myself over and over why this happened to my child.	.566
43.I can't stop thinking about what could have been done stop the event from happening.	.545
34.Others blame me for what happened to my child.	.831
33.Others have judged me for what happened.	.797
44.Others must think I am a terrible parent.	.791
16.Others must wonder if I am safe looking after children.	.768
22.I failed to look after my child properly.	.721
32.I should have done more to keep my child safe.	.645
11.Another parent would not have let this happen.	.521

Note: Factor loading of the Appraisals Scale using Principal Components Analysis (PCA).

routine”) (c) Cognitive Avoidance (3 items, e.g., “I tell my child not to think about what happened”) (d) Encouraging Trauma-Related Discussion (4 items, e.g., “I’ve talked to my child about their feelings when they remember what happened”) (e) Overprotection (4 items, e.g., “Since the event I make sure I can always contact my child if s/he is not with me”). Items 24 (“I try to stop other people talking about what happened in front of my child”) and 23 (“I talk about the frightening event with my child just like I do anything else”) were retained in the 21-item PCA factor model, despite a primary loading of .4. These items were retained as their inclusion improved the internal consistency of the Encouraging Behavioural Avoidance and Encouraging Trauma-Related Discussions factors. PCA factors and item loadings can be found in Table 5.4. The Cronbach’s alpha was $\alpha = .873$ for Encouraging Behavioural Avoidance; $\alpha = .728$ for Overprotection; $\alpha = .744$ for Continuing Normal Routines; $\alpha = .779$ for Encouraging Trauma-Related Discussion; and $\alpha = .795$ for Cognitive Avoidance, indicating that all factors had good internal consistency (Nunnally, 1978).

The behavioural items were next entered into a PAF and items were retained if they loaded on a primary factor greater than 0.5 and less than 0.3 on secondary factors ($KMO = .798$; Bartlett’s test $X^2(190) = 2113.1, p < .0001$). Visual examination of the scree plot and parallel analysis confirmed the acceptability of the five-factor solution. Items 24 and 23 were retained, despite a primary factor loading of .4, as these items had loadings of less than 0.3 on secondary factors and their inclusion improved the internal consistency of the Encouraging Behavioural Avoidance and Encouraging Trauma-Related Discussions factors.

The final 21-item Behaviour scale, as determined by the results of the PAF, was found to account for 67% of the total variance, with the replicated first factor of Encouraging Behavioural Avoidance (six items, $\alpha = .857$) accounting for 28.7% of the variance. Overprotection (four items, $\alpha = .728$) accounted for 14.6% of the variance and 8.6%, 8%, and 7% of the variance was accounted for by Continuing Normal Routines (four items, $\alpha = .766$), Encouraging Trauma-Related Discussion (four items, $\alpha = .779$), and Cognitive Avoidance (three items, $\alpha = .795$) respectively. PAF factors and item loadings can be found in Table 5.5.

Convergent Validity

Prior to tests of convergent validity, Mann-Whitney U tests were used to determine whether PRCET sub-scale scores differed by sample characteristics. Mothers

Table 5.3

PAF Factor Loadings of the PRCET Appraisals Scale

Items	Permanent Change	Rumination	Blame
29.Our family will not get back to the way we were before the event happened.	.774		
1.Our family will never be the same again.	.751		
18.If my child has any more stress it will seriously damage him/her	.740		
38.Our family cannot cope very well with stress now.	.691		
5.My child has been permanently damaged by the frightening event.	.680		
27.My child was so badly scared by the frightening event that they won't get over it.	.680		
42.I keep wishing we could have the life we had before the event happened.	.673		
17.My child would not be able to deal with being reminded of what happened.	.670		
25.My child is always going to be anxious and upset now.	.648		
10.Our family has been disrupted really badly by what happened.	.641		
19.My child is not tough enough to cope with things that can happen.	.627		
12.My child is not going to be able to cope in the future now.	.624		
9.My child might easily go to pieces if I don't protect them from their fears.	.623		
3.I keep thinking how it could have been even worse than it was.		.826	

36.It is extremely upsetting to imagine how my child felt during the frightening event.	.753	
2.I have to make sure I can protect my child all the time.	.732	
26.I keep on wishing that I could go back in time and stop the event from happening.	.724	
40.I could not bear it if my child was ever hurt or threatened again.	.682	
41.I can't bear to think about what happened to my child.	.625	
15.I get upset or angry when I am reminded of what happened to my child.	.622	
39.Anything could happen to my child when I am not around.	.599	
14.I ask myself over and over why this happened to my child.	.565	
43.I can't stop thinking about what could have been done stop the event from happening.	.548	
44.Others must think I am a terrible parent.		.786
22.I failed to look after my child properly.		.715
33.Others have judged me for what happened.		.713
34.Others blame me for what happened to my child.		.699
16.Others must wonder if I am safe looking after children.		.686
32.I should have done more to keep my child safe.		.601

Note: Factor loading of the Appraisals Scale using Principal Axis Factoring (PAF).

were found to score significantly higher on the Overprotection ($U=1595, p=.025$) and Rumination ($U=1602, p=.027$) sub-scales than fathers. There were no significant group differences as a function of child gender. Child age was also examined as a potential covariate and was found to correlate positively with Encouraging Behavioural Avoidance ($r=.163, p=.014$), Cognitive Avoidance ($r=.194, p=.003$), Overprotection ($r=.238, p<.001$), Appraisals of Permanent Change ($r=.184, p=.006$), and Rumination ($r=.148, p=.026$). Child age correlated negatively with the Continuing Routines sub-scale ($r= -.215, p=.001$). The sub-scales of Appraisals of Blame ($r=.015, p=.827$) and Encouraging Trauma-related Discussions ($r=-.059, p=.379$) were not significantly associated with child age.

As cognitions and appraisals are expected to be predictive of parental behaviours (de Hooze, 2014; Ferguson & Bibby, 2002) the association between the three PRCET appraisal sub-scales and the behavioural sub-scales was examined using Spearman's correlations (see Table 5.6). The appraisal factors were found to significantly correlate with reported behaviour. The most robust set of associations was observed for Appraisals of Permanent Change, which were positively associated with Encouraging Behavioural Avoidance ($r= .669, p<.001$), Cognitive Avoidance ($r= .462, p<.001$) and Overprotection ($r= .527, p<.001$), and negatively associated with Continuing Normal Routines ($r= -.216, p=.001$) and Encouraging Trauma-Related Discussions ($r=-.276, p<.001$). Appraisals of Blame showed a similar pattern of findings; however, Appraisals of Blame was not significantly associated with Encouraging Trauma-Related Discussions ($r=-.026, p=.700$). Rumination showed significant associations with all sub-scales except Continuing Normal Routines ($r=.073, p=.276$) and Encouraging Trauma-Related Discussions ($r=.033, p=.626$).

To investigate the convergent validity of the PRCET, Spearman's correlations were calculated between the PRCET scores and the scores on the POS which measures overprotective parenting behaviours. Scores on the POS were only available from the PROTECT sample ($n=91$). An examination of the correlations (Table 5.6) found that the POS scale was strongly and significantly associated with all PRCET sub-scales except the Continuing Normal Routines ($r= .032, p=.766$) and Encouraging Trauma-Related Discussions ($r= .019, p=.859$) sub-scales.

Finally, it was predicted that both appraisal and behavioural PRCET sub-scales would be significantly associated with child PTSS. In particular, it was expected that the PRCET sub-scales of Appraisals of Permanent Change, Rumination, Appraisals of

Table 5.4

PCA Factor Loading of the PRCET Behavioural Scale

Item	Encouraging Behavioural Avoidance	Continuing Normal Routines	Cognitive Avoidance	Encouraging Trauma- Related Discussion	Overprotection
8.I avoid places, people or activities that might remind my child of what happened.	.927				
9.I try never to take my child near reminders of what happened.	.902				
6.I am careful about what we watch on the television and internet, so my child is not reminded of what happened.	.889				
4.I try to keep conversations away from what happened in the event.	.578				
1.I avoid talking about the event because I don't want to upset my child.	.571				
24.I try to stop other people talking about what happened in front of my child.	.459				

20.I've tried not to change my child's usual routine.	.868	
19.I try not to let my child's possible fears or worries after the event change what we do.	.794	
26.I've tried to keep our lives as normal as possible since what happened.	.739	
16.Since the event, I try to get my child to do exactly the same things that they always did.	.673	
15.I tell my child to put any thoughts or worries about what happened out of their head.	.847	
14.I tell my child not to think about what happened.	.840	
3.If my child mentions what happened I try to distract them so they talk about something else instead.	.765	
13.I've talked to my child about their feelings when they remember what happened.		.932
7.I've talked to my child about how they felt at the time of the frightening event.		.875
11.I'll talk about what happened openly, even if my child is there.		.713

23.I talk about the frightening event with my child just like I do anything else.	.462
18.Since the event I make sure I can always contact my child if s/he is not with me.	.851
34.I need to know where my child is all the time, since the event happened.	.720
30.I tell my child never to take any risks.	.709
28.I plan with my child what they should do in an emergency.	.664

Note: Factor loading of the PRCET Behaviour Scale using Principal Components Analysis (PCA).

Table 5.5

PAF Factor Loading of the PRCET Behavioural Scale

Item	Encouraging Behavioural Avoidance	Continuing Normal Routines	Cognitive Avoidance	Encouraging Trauma- Related Discussion	Overprotection
8.I avoid places, people or activities that might remind my child of what happened.	.939				
9.I try never to take my child near reminders of what happened.	.900				
6.I am careful about what we watch on the television and internet, so my child is not reminded of what happened.	.790				
4.I try to keep conversations away from what happened in the event.	.541				
1.I avoid talking about the event because I don't want to upset my child.	.508				
24.I try to stop other people talking about what happened in front of my child.	.430				

20.I've tried not to change my child's usual routine.	.854	
19.I try not to let my child's possible fears or worries after the event change what we do.	.764	
26.I've tried to keep our lives as normal as possible since what happened.	.618	
16.Since the event, I try to get my child to do exactly the same things that they always did.	.505	
14.I tell my child not to think about what happened.	.836	
15.I tell my child to put any thoughts or worries about what happened out of their head.	.788	
3.If my child mentions what happened I try to distract them so they talk about something else instead.	.662	
13.I've talked to my child about their feelings when they remember what happened.		.913
7.I've talked to my child about how they felt at the time of the frightening event.		.754
11.I'll talk about what happened openly, even if my child is there.		.631

23.I talk about the frightening event with my child just like I do anything else.	.411
18.Since the event I make sure I can always contact my child if s/he is not with me.	.797
34.I need to know where my child is all the time, since the event happened.	.683
30.I tell my child never to take any risks.	.597
28.I plan with my child what they should do in an emergency.	.501

Note: Factor loading of the PRCET Behaviour Scale using Principal Axis Factoring (PAF).

Blame, Encouraging Behavioural Avoidance, Cognitive Avoidance and Overprotection would be associated with higher levels of child PTSS; whilst Continuing Normal Routines and Encouraging Trauma-Related Discussions would be associated with fewer child symptoms. Significant positive correlations were found between parent-report of child PTSS using the DIPA and UCLA-RI and Appraisals of Permanent Change, Rumination, Appraisals of Blame, Encouraging Behavioural Avoidance, Cognitive Avoidance, and Overprotection (see Table 5.6). Parent-report of child PTSS using the DIPA was also significantly negatively associated with child PTSS and Continuing Normal Routines ($r = -.252, p = .012$) and Encouraging Trauma-Related Discussions ($r = -.302, p = .003$). However, no significant relationship was found between parent-report using the UCLA-RI and Continuing Normal Routines ($r = -.097, p = .300$) and Encouraging Trauma-Related Discussions ($r = -.003, p = .976$). Significant positive associations were found between child-report of PTSS using the UCLA-RI and the sub-scales of Rumination ($r = .197, p = .033$), Appraisals of Blame ($r = .203, p = .028$), Overprotection ($r = .212, p = .023$) and Encouraging Behavioural Avoidance sub-scales ($r = .188, p = .043$). These effects were maintained after covarying for trauma type, child age and gender.

Discussion

This study described the development and preliminary investigation of the PRCET as a measure of post-trauma parental appraisals and behaviours. The results indicate that the PRCET is a valid and reliable measure of parental responses following child trauma exposure. The factor structure of the PRCET Appraisal and Behavioural scales was identified using a comprehensive factor analysis strategy (Thompson & Daniel, 1996). Slight differences were found between the PCA and PAF analyses (e.g., factor loading of .813 for item 29 on the Appraisal scale PCA vs factor loading of .774 for item 29 in PAF; the inclusion of item 8 on the Appraisal scale PCA but exclusion of this item in the PAF, see Tables 5.2 and 5.3). Such differences are likely to be attributable to the differences in the statistical approach as PCA does not recognise the existence of random error introduced by measurement, unlike PAF which is less likely to yield inflated factor loadings (Baglin, 2014).

All factors were found to have good internal consistency, suggesting that the factors represent coherent constructs. Notably, the Cognitive Avoidance sub-scale consisted of only three items; however, this sub-scale had good internal consistency and all of the corresponding items loaded above 0.6 on this factor indicating that Cognitive

Table 5.6

Spearman Correlations between the PRCET, PTSD Symptom Severity, and the Parental Overprotection Scale.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Permanent Change											
2. Rumination	.591**										
3. Blame	.359**	.415**									
4. Encouraging Behavioural Avoidance	.669**	.450**	.296**								
5. Continuing Normal Routines	-.216**	.073	-.183**	-.448							
6. Cognitive Avoidance	.462**	.316**	.225**	.496**	.078						
7. Encouraging Trauma-Related Discussions	-.276**	.033	-.026	-.515**	.473**	-.304**					
8. Overprotection	.527**	.573**	.195**	.553**	-.017	.436**	-.173**				
9. POS	.470**	.626**	.254*	.508**	.032	.307**	.019	.613**			
10. UCLA-RI Severity Score (Parent Report)	.642**	.624**	.334**	.509**	-.097	.244**	-.003	.403**	.428**		

11. UCLA-RI Severity Score (Child Report)	.176	.232*	.227*	.250**	.070	.100	.018	.212*	.066	.201*
12. DIPA Symptom Impairment Score	.571**	.230*	.320**	.517**	-.252*	.259*	-.302**	.448**		

Note: POS = Parental Overprotection Measure. The POS was completed by the participants of the PROTECT study (n=91). UCLA-RI= UCLA Posttraumatic Stress Disorder Reaction Index, PTSD overall severity score reported (n=117). DIPA= Diagnostic Infant and Preschool Assessment, symptom impairment score reported (n=102). *p<.05, ** p<.01, ***p<.001.

Avoidance is a stable factor (Costello & Osborne, 2005; Guadagnoli & Velicer, 1988; Tabachnick & Fidell, 2000). There was also evidence of convergent validity on the basis of the significant associations between the Overprotection, Encouraging Behavioural Avoidance, Appraisals of Permanent Change, Appraisals of Blame, Rumination, and Cognitive Avoidance sub-scales with an established measure of parental overprotection. Participant demographic characteristics, including parent gender, were found to be associated with PRCET sub-scale scores. Mothers were found to score significantly higher than fathers on the Overprotection and Rumination sub-scales. This is in line with previous research that has found mothers to generally report more overprotection and rumination than fathers (Bokszczanin, 2008; Hechlerl et al., 2011; Jelena & Tatjana, 2010).

The PRCET sub-scale scores were correlated with child PTSS severity, indicating that the factors are reliable. Parental responses that have been found to be maladaptive in previous research, including parental overprotection, encouragement of avoidance, and appraisals of permanent change (Bokszczanin, 2008; Ehlers et al., 2003; Hiller et al., 2016; Morris et al., 2013), were found to be associated with higher levels of child PTSS in the present study. These results add to the existing evidence of a significant relationship between post-trauma parenting and childhood PTSS. Strong positive correlations were found between child PTSS and the Overprotection, Encouraging Behavioural Avoidance, Rumination, and Appraisals of Permanent Change sub-scales and these parental responses may be potential targets for future interventions to improve child adjustment post-trauma. Continuing Normal Routines and Encouraging Trauma-Related Discussions were significantly negatively associated with child PTSS; however, the relationship between these sub-scales and child PTSD severity varied across samples. As the majority of participants in the present study completed the PRCET shortly following child trauma exposure, Continuing of Normal Routines and Encouraging Trauma-Related Discussions may reflect strategies adopted by parents over time after the initial familial disruption has subsided and longitudinal research is needed to examine the relationship between the PRCET sub-scales and child PTSS over time. Additionally, as parental psychopathology is likely to be linked to the promotion of maladaptive coping strategies, future studies assessing the relationship between parental psychopathology and the PRCET would provide deeper insight into the clinical utility of the measure.

It could be argued that the PRCET Overprotection sub-scale items are not reflective of parental overprotection post-trauma. However, the Overprotection sub-scale shares distinct similarities with items in other validated measures of parental overprotection, including the POS (“I try to anticipate and avoid situations where my child might do something risky,” Edwards et al., 2008) and the Parent Protection Scale (“I keep a close watch on my child,” Thomasgard, Metz, Edelbrock, & Shonkoff, 1995). The sub-scale was also found to correlate strongly with parental responses on the POS, indicative of convergent validity. It is possible that parental responses on the Overprotection sub-scale items may be influenced by child age. For example, it may be entirely appropriate for parents of younger children to report needing to know where their child is at all times (e.g., item 34). However, in the present study, child age was not found to be a significant covariate of the Overprotection subscale, although this should be considered in future studies.

The parental appraisals sub-scales were found to correlate with reported behaviour. These results suggest that post-trauma parental responses, such as encouragement of avoidance and overprotection, may be underpinned by maladaptive parent appraisals. Previous research has found that dysfunctional parental appraisals may contribute to maladaptive parenting behaviours post-trauma (Boksztzanin, 2008; Scheering & Zeanah, 2001; Thomasgard & Metz, 1997), and the results of this study suggest that clinicians may need to consider the influence of parental appraisals when aiming to address maladaptive parenting behaviours post-trauma.

Overall, the present finding that parent appraisals and behaviours are associated with child PTSD symptoms highlights the need for a measure of parental responses post-trauma. As the majority of previous research has either used measures that were not designed to assess parental responses post-trauma or non-validated measures, the PRCET offers the means to reliably assess parent appraisals and behaviours following child trauma exposure. Furthermore, as both parental appraisals and behaviours are associated with child outcomes post-trauma (Boksztzanin, 2008; Ehlers et al., 2003; Morris et al., 2013), the PRCET allows for the assessment of both of these dimensions comprehensively and reliably, and the use of this measure in future research may further our understanding of the relationship between parenting and child PTSD. A strength of this study was the recruitment of participants following a range of trauma types (both single-injury and complex trauma) from diverse populations (both clinical and community). While additional validation is needed, these results are encouraging and

indicate that the PRCET could potentially be used to measure parental post-trauma responses for research in the general population and in clinical settings.

This study had several limitations. First, the majority of participating parents were mothers and future studies should include more fathers in order to gain a deeper understanding of post-trauma parent responses. Second, parent reports of parental responses post-trauma reflect perceptions of parenting, which may not be consistent with observed parenting practices, and the potential influence of social desirability bias must be recognised. Furthermore, as parents provided information regarding both parental responses and child PTSS, this may have introduced single-informant bias. A third weakness of this study was the relatively small sample to variable ratio of 5:1. Previous research has recommended a ratio of 10:1 (Osborne & Costello, 2009; Everitt, 1975). However, a firm consensus on an adequate sample size to variable ratio has yet to be reached (Everitt, 1975; Pett, Lackey & Sullivan, 2003; Tabachnick & Fidel, 2000) and a sample size of 200 is considered fair (Comrey & Lee, 1992). Nonetheless, the results of this study would benefit from replication using confirmatory factor analysis with a larger sample and must be interpreted with caution. Fourth, it is possible that the analysis of data from four diverse samples may have potentially introduced some bias. Finally, data on the POS measure of parental overprotection was available for only a subset of parents ($n=91$) and the results of this convergent validity analysis must therefore be interpreted cautiously.

With these limitations in mind, the present study is an important step in the examination of parental responses post-trauma. The findings tentatively suggest that the PRCET is a reliable and valid measure of parental appraisals and behaviour following child trauma exposure. This study also adds to the existing evidence that parental responses are associated with child PTSS. Nevertheless, given the variability in the associations between the Continuing Normal Routines and Encouraging Trauma-Related Discussions sub-scales and child PTSS, and the small sample to variable ratio, further evaluation is needed.

Chapter 6 Paper 5: Caregiver responses to child post-traumatic distress: A qualitative study in a high risk context in South Africa

Manuscript under review for publication at *Journal of Traumatic Stress*.

Williamson, V., Butler, I., Tomlinson, M., Skeen, S., Christie, H., Halligan, S. (in submission). Caregiver Responses to Child Post-traumatic Distress: A Qualitative Study in a High Risk Context in South Africa. *Journal of Traumatic Stress*.

The majority of research exploring the relationship between parenting and childhood PTSD has been conducted in relatively low-risk, Western contexts which may not be generalisable to parents in high-risk contexts. Paper 5 describes a qualitative investigation of parental experiences of providing care and support to children following trauma exposure in the high-risk, peri-urban settlement of Khayelitsha, South Africa.

Statement of Authorship

This declaration concerns the article entitled:									
<i>Caregiver Responses to Child Post-traumatic Distress: A Qualitative Study in a High Risk Context in South Africa</i>									
Publication status (tick one)									
Draft manuscript		Submitted	X	In review		Accepted		Published	
Publications details (reference)	Williamson, V., Butler, I., Tomlinson, M., Skeen, S., Christie, H., Halligan, S. (2016). <i>Caregiver Responses to Child Post-traumatic Distress: A Qualitative Study in a High Risk Context in South Africa</i> . Manuscript submitted for publication.								
Candidate's contribution to the paper (detailed, and also given as a percentage)	<p>The candidate contributed to/ considerably contributed to/predominantly executed the...</p> <p>Victoria Williamson considerably contributed to the conception and methodological design of the study (70%). Due to language barriers, data collection was conducted by local data collectors. Nonetheless, Victoria Williamson oversaw the collection of study data and predominantly executed the analysis and interpretation of data for the study (95%). The presentation of the study data in journal format was predominantly executed by Victoria Williamson (95%).</p>								
Statement from Candidate	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature.								
Signed						Date			

Caregiver responses to child post-traumatic distress: A qualitative
study in a high risk context in South Africa

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Abstract

Background Many low and middle income countries (LMIC) have high-rates of child trauma exposure and limited access to psychological services. Caregivers are often children's key source of support following trauma in such contexts.

Aims To explore the experiences of primary caregivers in supporting their child post-trauma.

Method Qualitative interviews were conducted with twenty female caregivers from a high-risk settlement in Cape Town following child trauma exposure. Children were exposed to significant traumatic events, including gang violence, assault and fatalities of close relatives. The data was analysed using thematic analysis.

Results Caregiver support for children prioritised physical safety, consistent with perceptions of the community as dangerous. Forgetting the trauma was encouraged as a coping strategy and discussions of the event were limited. Nonetheless, caregivers were typically aware of child distress and offered reassurance and other forms of support. Many barriers existed to accessing psychological treatment for their child.

Conclusions The results illustrate the challenges faced by caregivers in supporting children following trauma in LMIC contexts and the need for accessible psychological interventions.

Declaration of interest None.

Post-traumatic stress disorder (PTSD) can result in negative long-term outcomes in children (Moroz, 2005). In many low and middle income countries (LMIC) young people are vulnerable to trauma exposure as a result of several factors, including extreme poverty, internal displacement, political violence, and child labour (Hofman, Primack, Keusch, & Hrynkow, 2005; Masinda & Muhesi, 2004; Reed et al., 2012; Whetten et al., 2011). In such contexts, formal psychological services are often extremely limited (Jordans, Tol & Komproe, 2011; Saxena, Thornicroft, Knapp & Whiteford, 2007). Consequently, families are likely to be children's key source of support following trauma in such contexts. Previous research has found post-trauma parenting behaviours to be associated with childhood PTSD. For example, parental warmth and support are thought to facilitate child coping post-trauma by modelling adaptive coping responses and providing a sense of security (Marsac, Donlon, Winston, & Kassam-Adams, 2013). Conversely, negative parenting behaviours, including overprotection, may increase child perceptions of vulnerability to threat and are associated with higher levels of child PTSD symptoms (Bokszczanin, 2008; Chorpita & Barlow, 1998; Williamson, Creswell, Fearon, et al., in submission). However, the effects of parenting behaviours on child adjustment is unclear in environments where extreme community violence is the norm. As the majority of research examining the association of parenting and child PTSD has been conducted in comparatively low-risk Western samples, little is known about the experiences and challenges faced by caregivers in higher-risk LMIC contexts in supporting their child.

We conducted a qualitative study of 20 families living in one such LMIC context, the township of Khayelitsha in Cape Town, South Africa. Khayelitsha is home to more than one million residents, the majority of which live in make-shift housing, with an approximate 51% unemployment rate (Brunn & Wilson, 2013). This peri-urban settlement has extremely high rates of violent crime and more than 80% of community youth report exposure to severe trauma (Shields, Nadasen, & Pierce, 2008). The prevalence of PTSD in youth from such communities is correspondingly high, approximately 20-38% (Seedat, Nyamai, Njenga, Vythilingum, & Stein, 2004), and is one of the most prevalent diagnoses presenting to local psychiatric services (Traut et al., 2002). Despite the high rates of child trauma exposure, referrals to mental health services have been found to be infrequent and few medical professionals receive training in appropriate care for victims seeking help following trauma (Gevers & Abrahams, 2014). Families are likely to provide the majority of support post-trauma and

the aim of our study was to inform our understanding of adaptive parenting and child adjustment in high-risk environments where standard support mechanisms may not be feasible.

Method

The study received approval from the University of Bath Department of Psychology Research Ethics Committee (15-022) and the Stellenbosch University Health Research Ethics Committee (N14/08/112).

Participants

We recruited primary caregivers resident in Khayelitsha with a child, aged 6-16 years, who had experienced a potentially traumatic event in the past two years. Exclusion criteria included: existing organic brain damage or intellectual disability in the child precluding mainstream schooling; caregiver being unaware of the child's trauma; child registered with child protection; concerns that the respondent caregiver was the perpetrator of the trauma; and the child was orphaned by the traumatic event.

Recruitment

Opportunity sampling occurred and community members, church leaders and NGOs were informed about the study and asked to distribute study details to known families who met the inclusion criteria. Researcher contact details were provided for potentially eligible families to contact the research team for more information about the study. The purposive sampling method of snowballing (Heckathorn, 2011) was also used to identify potential participants, as participating caregivers often referred the researchers to other members of the community whose child had experienced a trauma. Once potentially eligible participants were identified, researchers provided information about the study and obtained informed consent from those caregivers willing to take part. For the purpose of this study, 'primary caregiver' was defined as the individual who serves as a parental figure to the child and is responsible for the child's daily care (Swanepoel, 2003).

Prior to participation, informed consent was provided by the child's primary caregiver. All consent forms were translated into Xhosa, the primary local language, and back-translated into English to ensure accuracy (Brislin, 1970). Consent forms were read aloud to all participants in Xhosa or English (depending on participant preference) and participants were regularly asked whether they had any questions. Prior to signing

the consent form, participants were asked to summarise the study in their own words and describe their reasons for wanting to participate in the study. At this point, any misunderstandings relating to the study procedures or potential risks or benefits of the project were addressed. All participants were provided with a copy of the consent form and informed that they could withdraw from the study at any time.

A total of 25 caregivers were approached to take part in the study, 20 of whom were recruited. Caregivers who did not participate were either not contactable or did not have time to participate.

Procedure

Assessments, described below, were conducted face-to-face by data collectors in Xhosa either at a research centre in Khayelitsha or at participants' homes. Several steps were taken to ensure confidentiality and interviews were only conducted if both caregivers and data collector agreed there was sufficient privacy in the home. All questionnaire items were administered verbally and data collectors recorded responses by hand. Caregivers were given a 120R (approximately £6.30) voucher for their participation in the study. Although this is the standard amount required by Stellenbosch University Health Research Ethics Committee, as 74% of the community in Khayelitsha has a monthly income of 3200R (approximately £190.33) or less according to recent census data (City of Cape Town, 2011), researchers were conscious that such payment had the potential to unduly influence participation. To counter this, researchers asked participants for their reasons for wanting to take part, highlighted the potential risks and benefits of their participation and emphasised repeatedly that participation in the study was voluntary and participants could withdraw at any time. Caregivers were offered the opportunity to discuss their experience following the interview and have any questions answered. Following the interview, all caregivers were provided with researcher contact details and offered the opportunity to receive a letter of referral to local mental health services for themselves or their child if desired.

Questionnaire Measures

Measures of child trauma exposure and PTSD symptoms were completed by all caregivers in order to provide contextual information.

Trauma history. Caregivers completed Part 1 of the University of California PTSD Reaction Index (UCLA-RI, Pynoos, Rodriguez, Steinberg, Stuber & Frederick, 1998) to assess the child's exposure to traumatic events in the last two years. Part 1

includes questions regarding exposure to community violence, natural disaster, abuse, and medical trauma. The UCLA-RI has been widely used internationally for trauma research (Murray et al., 2011).

PTSD symptoms. Caregivers reported their child's symptoms using the Child PTSD Checklist (CPC, Amaya-Jackson, McCarthy, Cherney, & Newman, 1995) which is based on the DSM-IV (American Psychological Association, 1994). The twenty-eight item CPC assesses child's PTSD symptoms in the past month using a four-point Likert scale (0: Not at all, 1: Sometimes, 2: Most of the time, 3: All of the time). As the standard CPC is a child-report measure, the CPC was modified to allow for caregiver-report of child PTSD symptoms and an additional response option of "Don't Know" was added. For example, the CPC item "Do you worry that it might happen again?" reads as "Does your child worry that it might happen again?" in the parent-report version. A cut-off score of one re-experiencing, three avoidance/numbing and two hyper-arousal symptoms at a conservative symptom threshold of 2 ('most of the time') was used to rate the presence of symptoms required for a DSM-IV diagnosis (American Psychiatric Association, 1994) in line with previous research (Seedat et al., 2004; Suliman et al., 2009). The CPC has been widely used to assess child PTSD symptoms in South Africa and has been found to have good internal consistency and validity ($\alpha=.93$; Boyes, Cluver, & Gardner, 2012), with an accessible Xhosa translation (Seedat et al., 2004). Mean total CPC score and number of symptoms endorsed are reported in Table 6.1 and Table 6.2.

Qualitative Interview Schedule & Procedure

The content of the semi-structured interview guide was informed by the literature of parent and child experiences post-trauma (Barriball & While, 1994; DiCicco-Bloom & Crabtree, 2006; Galletta, 2013; Parker & Henfield, 2012), and by two focus groups conducted with members of the local community to ensure all questions were culturally relevant and sensitive. The interview guide included demographic questions in addition to open-ended questions relating to caregivers' perceptions of their child's post-traumatic distress and experiences of supporting their child post-trauma. Additional questions were asked to explore the impact of the child's trauma on the family and caregivers' perceptions of (need for) support, as well as the barriers to the provision of such support. Interview questions included: Were there any changes you noticed in your child after the event? Do you feel able to support your child after the trauma? Generally speaking, what have other families in this community done to

support their children who have had similar experiences? All interviews were audio-recorded and transcribed verbatim. Transcripts underwent a three-part transcription and translation process to ensure accuracy, trustworthiness and credibility (Esposito, 2001). First, the audio-recording was translated and transcribed by an independent, bilingual transcriber who did not conduct the interview. Second, the data collector who conducted the interview reviewed the translation. Third, the two researchers met to resolve any disagreements in the transcript through in-depth discussion of the data and audio-recording.

Data Analysis

Transcripts were imported into NVivo 10 (www.qsrinternational.com/products_nvivo.aspx) and analysed using inductive thematic analysis (Braun & Clarke, 2006). The steps recommended by Braun & Clarke (2006) were used: repeated re-reading of the data set; generating initial codes; searching for and developing initial themes; and reviewing, delineating and organising themes. Transcripts were manually coded in a systematic fashion, with initial codes collated to form overarching themes (Braun & Clarke, 2006). All coded text segments for each candidate theme were examined to determine whether themes were coherent and accurately reflected the intended meanings evident across the data set (Attride-Stirling, 2001; Braun & Clarke, 2006). Given the subjective nature of qualitative analysis, a reflexive record was kept by the primary researcher (V.W.) throughout data collection and analysis to actively recognise assumptions or biases and avert premature interpretations of the data (Mason, 2002; Morrow, 2005). Memos were also recorded regarding the primary researcher's ideas, reflections as well as thoughts about emerging themes and relationships between themes (Birks, Chapman & Francis, 2008). Authors V.W. and H.C. independently reviewed all transcripts, with codes and candidate themes examined for agreement, coherence and accuracy. Any disagreements were resolved following a re-examination of the data. The credibility and trustworthiness of the findings was also established by peer debriefing (Morrow & Smith, 2000). Peer debriefing took place with feedback sought from the data collectors who conducted the interviews to ensure codes and themes reflected the social, cultural and economic context of participants. Furthermore, feedback regarding interpretation of the data was regularly solicited from authors S.H. and I.B. who have experience with child psychopathology research and qualitative methods.

Results

Of the 20 caregivers, 85% were mothers with low income and employment levels (see Table 6.1). 55% of the children were female. Child mean age was 11.5 years. On average, caregivers reported that their child had experienced three traumatic events in the last two years and the average CPC score, as reported by caregivers, was 19.5. Trauma characteristics are described in Table 6.2.

Results of Thematic Analysis

Four key themes emerged from the data, reflecting parental experiences and efforts to support their child post-trauma. Anonymised excerpts are used to illustrate the findings with pseudonyms assigned to all caregivers and children to ensure confidentiality. Additional participant quotes are provided in Appendix 12 to delineate themes and sub-themes, with a visual representation of themes and sub-themes presented in Figure 6.1.

Post-trauma perceptions of the child. Caregivers identified their child as being changed by the trauma and this change could be profound.

After the accident he is not right at all... his mind is not stable... When you say something to him it would stay in his mind...everything of his was stable. But now nothing he does is stable, even if you send him to the shop he will not know why you sent him. (Kuhle, mother, 39 years)

Strong behavioural indicators of poor adjustment were described and identified as being a psychological consequence of the trauma. These included forgetfulness, anti-social behaviour, loss of control of bodily functions (e.g., urination) and attention problems.

After the incident she changed, she does not listen, she does not want to go to school, she does not come home in time. If you ask her to do something she will throw tantrums and cry or not do what you told her to do. If she is not going to school she will... go out and only come back about ten pm. (Bongani, mother, 32 years)

Trauma specific responses were also described, including withdrawal, nightmares and fear of certain places, activities or people.

I have noticed that the children get frightened when there is a knock at the door and they will be the first ones to ask who is at the door, faster than me and their father. (Sisipho, mother, 36 years)

Avoidance mechanisms and safety behaviours in response to the trauma were identified, including avoiding certain areas or activities, refusing to travel alone, and carrying weapons. Additionally, caregivers frequently sought others' impressions of the child's behaviour, such as teachers', and this provided external validation of concerns. Notably, caregivers primarily relied upon behavioural cues, rather than discussion, to determine their child's emotional response to the trauma. Caregivers often speculated at the causes for their child's behaviours and distress without directly engaging in discussion with their child.

Interviewer: Did you ever talk to Buli about the incident after it happened?

Mother: I never talked to her as I saw that she only gets scared when she sees a male person. (Sanele, mother, 43 years)

Everything of his was stable but now nothing he does is stable.... Even his class teacher told me that Bhutana is not the same, you tell him this, he will say something else, he does not say what you are saying at the present moment, he says something else and when you tell him something he will not remember. (Kuhle, mother, 39 years)

In some cases, this appeared to hinder caregiver insight into the source of their child's behaviour.

Thoko does not care about [what happened], she does not act like someone who has had a problem... she sees it as something that does not matter... Thoko was not shocked at all... She does not talk about it, she never talked. (Nikelwa, mother, 48 years)

Strategies to support the child. Caregivers were sensitive to their child's distress. However, efforts to care for their child post-trauma were often reactive. Sometimes supportive behaviours conflicted with each other or were undermined by contextual barriers to support. Predominant emotions expressed by caregivers were helplessness and defeat, with several caregivers reportedly feeling anxious and unable to adequately care for or protect their child post-trauma. Contributing to these feelings was a lack of support from others and children's rejection of caregivers' proffered support.

Table 6.1

Participant Demographic Information

Demographic characteristic	Sample statistics (n=20)
Child mean age, <i>M(SD)</i>	11.50 (3.02 SD) range 6-16
Caregiver mean age, <i>M(SD)</i>	41.25 (8.02 SD) range 29-57
Caregiver marital status, <i>n</i> (%)	
Single	8 (40%)
Married / living with partner	8 (40%)
Divorced/Separated/Widowed	2 (20%)
Mean number of days in the last week child has gone hungry, <i>M(SD)</i>	1.35 (1.39 SD)
Time since trauma (months), <i>M(SD)</i>	13.85 (8.08 SD), range 2-24 months
Mean number of traumatic events experienced (Caregiver report), <i>M(SD)</i>	3.4 (SD 1.90), range 1-7 events
Mean total CPC Score (Caregiver report), <i>M(SD)</i>	19.50 (13.50 SD), range 2-53
Monthly income, <i>n</i> (%)	
0-1000R	3 (15%)
10001-2000R	5 (25%)
2001-5000R	8 (40%)
More than 5000R	3 (15%)

Note: CPC= Child PTSD Checklist. Mean total CPC score was calculated from caregiver-report using the Child PTSD Checklist. The Rand-Pound Sterling exchange rate as of 12th January 2016, 500R=£20.84, 1000R= £41.67, 5000R=£208.36. The minimum living wage in South Africa is industry specific; for example, the Ministry of Labour set the minimum living wage for farm labourers at 2274R per month (£94.76). SD = standard deviation.

Table 6.2

Participant Trauma Characteristics

Caregiver pseudonym	Caregiver interviewed	Caregiver age	Child age	Child gender	Trauma experienced	Months since trauma	CPC total score	Number of symptoms endorsed
Anele	Mother	49	15	Female	Witnessed death of family member	20	30	24
Fezeka	Mother	31	16	Male	Physical assault	4	35	26
Inam	Mother	34	9	Female	Sexual assault	24	24	21
Lulama	Grandmother	57	11	Female	Physical assault	24	26	22
Mandisa	Mother	43	16	Female	Witnessed death of close friend	4	7	4
Nikelwa	Mother	48	15	Female	Physical assault	8	18	9
Nobuntu	Mother	29	10	Male	Witnessed death of close friend	24	15	13
Mncedisi	Mother	43	15	Male	Physical assault	12	39	24
Sisipho	Mother	36	9	Male	Armed robbery	12	4	4

Olwethu	Mother	46	11	Male	Sexual assault	24	16	12
Sanele	Mother	43	6	Female	Witnessed physical assault of a family member	4	2	2
Vela	Mother	43	15	Male	RTA	12	10	9
Zola	Mother	50	11	Female	Abducted	24	53 ^M	25
Sinethemba	Mother	37	11	Male	Abducted	4	9	9
Thembeka	Aunt	38	8	Female	RTA	24	5	5
Mihlali	Aunt	45	9	Male	Physical assault	12	29	19
Babalwa	Mother	29	14	Female	Sexual assault	12	22	22
Bongani	Mother	32	9	Female	Sexual assault	15	18	18
Gcobisa	Mother	53	11	Female	RTA	12	3	3
Kuhle	Mother	39	9	Male	RTA	2	25	22

Note: CPC = Child PTSD Checklist. CPC total score was calculated from caregiver-report using the Child PTSD Checklist. Number of symptoms endorsed refers to number of symptoms endorsed by caregiver report using the Child PTSD Checklist. ^M meets criteria for PTSD diagnosis using CPC. RTA = Road traffic accident.

No one supported me... when you are in trouble [your family] don't want to care for each other, they think you are going to depend on them so they tell themselves that you are going to depend to them while they also have their families. (Bongani, mother, 32 years)

The following sub-themes were identified.

Parental warm support. Caregivers reported many positive responses intended to alleviate child distress, including encouraging their child to feel safe, normalising the trauma, and reassuring children that the traumatic event was unlikely to reoccur, although it is notable that caregivers simultaneously emphasised danger and encouraged their child to be vigilant (see the following section).

I support him by talking to him. I tell him that these things happen, what is important is that he is safe... he needs to move forward and to feel that nothing like that is going to happen again, it will never happen to him all the time even though things happen. (Sinethemba, mother, 37 years)

Support often incorporated religious beliefs and children were encouraged to attend church services, pray and employ other self-directed faith-based coping strategies. Such faith-based support was often offered to reassure children and foster a sense of safety post-trauma. For example, a child who feared they would die during the traumatic event was reassured that God protected them. As seen in the following excerpt, several caregivers regularly prayed with their children and prayer provided children with an opportunity to voice their post-trauma concerns or fears and receive comfort or guidance from caregivers. Caregivers also promoted a positive perspective of the trauma and encouraged children to think of their future:

Aunt: I would tell him we should pray and sometimes he would say so himself...He would say 'Aunt lets pray, Aunt I prayed last night'... He would say before we sleep we should pray because he is scared...

Interviewer: How did the family support him, can you explain to me?

Aunt: He was told that God will help him from the situation that he is in, even if he might not stand up again but he must not give up hope because he was not born [paralysed], that is how we encouraged him by giving him those words. (Mihlali, aunt, 45 years)

Caregivers arranged for their child to receive faith-based protective objects (e.g., rope belts) as a physical symbol of protection and remedy for adjustment difficulties.

I want to take her to St Johns so that they can make a rope [belt] for her and make the water for her to wash with maybe she will be right... I believe in that

church if I wash and drink their water and at night when I am afraid I would shower the house with the same water and open the Bible and sleep. (Bongani, mother, 32 years)

Other indirect ways of showing care were commonly reported by caregivers, including modifying their own behaviour to interact with their child in a more sensitive, less punitive manner, and communicating with teachers to make them aware of the source of their child's distress. Providing good physical care, such as ensuring their child was clean or well-dressed, was also a concern and some caregivers expressed exasperation that this physical care did not alleviate emotional problems.

I knew she will not be right, so I decided to be soft and be next to her all the time. I did not force her to go to school and I did not leave her to go to work. I wanted to be close to her and spend time with her. I stayed with her and I saw that she is becoming right. (Babalwa, mother, 29 years)

Promotion of avoidance. Caregivers actively promoted behavioural and cognitive avoidance strategies to cope with the trauma. Caregivers reported avoiding discussion of the event to prevent their child becoming distressed and avoiding talking about the trauma until their child initiated the conversation. This meant the trauma was rarely discussed. Caregivers also removed their child from contact with trauma reminders as these were thought to contribute to their child's post-trauma difficulties.

Luthando says as he was hiding behind that house he heard his friend cry once, I suppose that was the time the car hit him... When he came out, he saw that the car has hit the yard... and his friend was lying on the ground hit by this car and there was many people. I could not listen to him tell the story, I asked him to stop. I became scared. (Nobuntu, mother, 29 years)

When I talk to her, especially about the incident that nearly happened to her, she cries and I decide to let it go seeing that she is hurting, I would let it go. (Bongani, mother, 32 years)

Thinking about the event was thought to signify poor adjustment and caregivers actively encouraged their children to forget the trauma. Consistent with this, caregiver expectations about psychological services were that they would make their child forget about the event in order to recover.

Mother: I want Nomsa to forget what happened to her and not think about it all the time because it has passed... I want her to get it rid of it and forget it...

Interviewer: What other things can be attached to the counselling in order for her to forget, for example, is it talking to the social worker?

Mother: Yes, she will talk to the social worker and she would tell her to forget and explain to her the way she would... Maybe [there] will be games that make the children forget, she will forget about it and it will seem like something that does not exist. (Zola, mother, 50 years)

Warnings and protection from future harm. Caregivers reported significant concern for their child's safety following the trauma, and described their community as dangerous and unpredictable. Commensurate with this need to ensure physical safety, caregivers encouraged their child to view the community as dangerous and considered hyper-vigilant behaviours as a desirable, adaptive post-trauma response. Some caregivers implemented marked changes to their family's daily routine, their child's school or friendships in an effort to keep them safe. Caregivers used warnings and threats of trauma recurrence to encourage adherence to modified routines. In some cases, such warnings could be considered somewhat catastrophizing, but in many instances parental warnings and threats of trauma reoccurrence were likely to reflect realistic concerns given the pervasive violence of the community.

Mother: What I have learned is that if a child is asking for permission to have a nice time with friends I must not allow them because I will not be there to see what they do. Maybe if I was there they would have never stabbed him...

Interviewer: Now that the incident is over, did he ever try to go meet his friends?

Mother: Yes, he did try...I told him that if you go to your friends you will be stabbed again and this time they will kill you. (Mncedisi, mother, 43 years)

I told her...people in Cape Town are shot like birds. You enter your home and it might happen that there is someone hiding wanting to shoot someone and they will shoot you because they are angry [that] they did not get the person they want...I tell them that the doors must always be closed because [our neighbourhood] is not cool and they listen to me. (Mandisa, mother, 43 years)

Perception of and care sought for post-trauma difficulties. Caregivers often reported supporting their child by seeking medical treatment for their post-trauma difficulties, reflective of caregivers' focus on physical or behavioural indicators of change. Caregivers faced considerable challenges in accessing both medical and psychological care for their child post-trauma. The majority of caregivers wanted psychological treatment for their child. However, treatment was often inaccessible as such support was either not available in their area, too expensive, follow-up appointments were poorly arranged, or caregivers were unaware of available treatment and were not offered a referral following the trauma.

Mother: I only take my child to St Johns to phalaza [traditional medicine] and pray. [If] I have money I can take my child to a specialist doctor so that they can look at her mind...I can only take her to the doctors that don't cost money...

Interviewer: Generally speaking, what do other families that have children who were in similar situations as Nomsa, do they talk about those things?

Mother: ... They say they went this way they were not helped, and [then] that way they were not helped, [so] they decided to just sit and let everything go. I tell them that I have not given up on Nomsa I am still trying, I will stop trying when I get to the place that I am told to go. (Zola, mother, 50 years)

The child was taken to counselling. She was given dolls there to show what happened and she did, she showed them and.... they said they were going to call us, but they never did...Even the counselling, she never went again. [The counsellors] went to school to collect reports about her, they wanted to know how she was after the incident. They never came back again. (Babalwa, mother, 29 years)

Caregivers perceived counselling to be helpful in remedying their child's adjustment difficulties and an opportunity for their child to discuss the trauma or receive coping advice. Notably, this discussion was thought to be best conducted with a therapist without caregiver participation. Caregivers were often uninvolved in their child's treatment and were unaware of the number of sessions or treatment the child had received. This was reportedly due to limited therapist-caregiver collaboration as well as caregivers' reluctance to question the child, which could provoke distress.

Mother: [The social workers] visited him in school but I don't know what they asked him and I don't know [the] number of sessions he got, but he would say he was visited by social workers...

Interviewer: Did he tell you about what he had talked about with social workers, how he felt?

Mother: No. He does not like to be asked...so we thought since this was tragic we should not ask him...maybe it pains him when talking about it. (Nobuntu, mother, 29 years)

Effect of the trauma on the caregiver. Caregivers reported experiencing significant distress post-trauma. At times this impacted the care and support they were able to provide to their child post-trauma, with some caregivers reportedly feeling too upset to interact with their child or hear details of the event.

I was not alright because I couldn't even look at Cikiziwa...they tested her [for HIV at hospital] and they found out that she was fine. Me too, I became

fine and I was able to look at her cause she was saved from what I was very scared of. (Inam, mother, 34 years)

Caregivers reported feelings of blame towards themselves or others for the traumatic event. To manage these feelings, caregivers often sought justice for their child, either through the judicial system or community vigilantism, and believed that this would reduce their own distress or prevent their child from blaming them. At the same time, caregivers also experienced positive psychological changes following the trauma, such as: growth in their religious beliefs; readjustment of their life priorities and a greater appreciation of their child; and gratitude that their child's injuries were not worse.

Caregivers reported receiving social support from friends, neighbours, relatives, members of their church and colleagues. Some caregivers felt it important that they talked about the event with others as it deepened their understanding of the event, reducing stress and anxiety.

I decided to talk about it at church so that I get [rid] of it...[I] told myself it is not my decision to make about what happened, I must get rid of it and go on with life. For example, I did not hide it, if someone asked me what happened I would tell them, that is what helped me most of the time...I feel much better now. (Babalwa, mother, 29 years)

In order to cope with the trauma, many caregivers described using various avoidance-based strategies in an attempt to regulate unwanted thoughts or emotions. Caregivers tried to avoid thoughts about the trauma by keeping busy or actively trying not to think about the event.

I would ask myself what I have done to deserve [this], even if God was punishing me why would he punish me like this? I would ask myself a lot of things...I end up letting go of it, trying not to think about it because it might kill me. And people always advising me to let go of it for the sake of my children. (Inam, mother, 34 years)

The reason why I sell things is that I want people to come by to give me that chance to interact with people, it makes me forget...I like selling thing that the children like to buy, like sweets. I know every minute they would come buy 10c sweets. I even make chicken feet, that keeps me busy a lot, it makes me forget for a while and I don't get depressed.

Frequently caregivers were aware of other children in their community who had experienced similar traumatic events, however caregivers often reported being unaware of how other families coped. Not only does this reflect the prolific nature of child

trauma exposure in the community, it also demonstrates that caregivers were often isolated in their distress as support and coping advice from other caregivers whose child had been exposed to a similar trauma was not sought.

Child PTSD and caregiver responses

The similarities and differences in responses of caregivers of children who did and did not meet PTSD criteria were explored. Likely PTSD in children was examined using the CPC parent-report. One child was found to meet criteria for a likely PTSD diagnosis (see Table 6.2). Based on the present sample, it is almost impossible to extract useful information and only tentative comparisons between caregiver responses are made. The caregiver of the child who met PTSD criteria promoted a positive interpretation for the event, that the child survived due to divine intervention, although this belief was also consistently reported by many caregivers whose child did not meet PTSD criteria. No evidence of differences was found in the provision of warm support between caregivers of children who did and did not meet PTSD criteria. Caregivers in both groups attempted to interact with their child more sensitively post-trauma, acquired faith-based protective items, offered reassurance and notified teachers of the traumatic event. The caregiver of the child who met PTSD criteria advocated avoidance-based coping and encouraged their child to forget the trauma in an effort to promote child recovery, consistent with many caregivers whose children did not meet PTSD criteria. Notably, while caregivers from both groups issued warnings to their children post-trauma, the warnings delivered by caregiver of the child who met PTSD could be described as particularly ‘catastrophizing’ rather than realistic warnings of future harm. Finally, the caregiver of the child who met criteria for likely PTSD also reported making considerable attempts to access psychological treatment for their child and they expected such treatment would lead to recovery by make their child forget about the event, which is consistent with the experiences reported by several caregivers of children who did not meet PTSD criteria. Overall, the caregiver responses of children who did and did not meet PTSD were not found to differ considerably. It must be noted that no clinical cut-offs of the CPC have been validated in Africa to date (Culver et al., 2012) and a comparison between caregiver responses with only one case of childhood PTSD may not be representative or generalisable, therefore these findings are tentative and must be interpreted with caution.

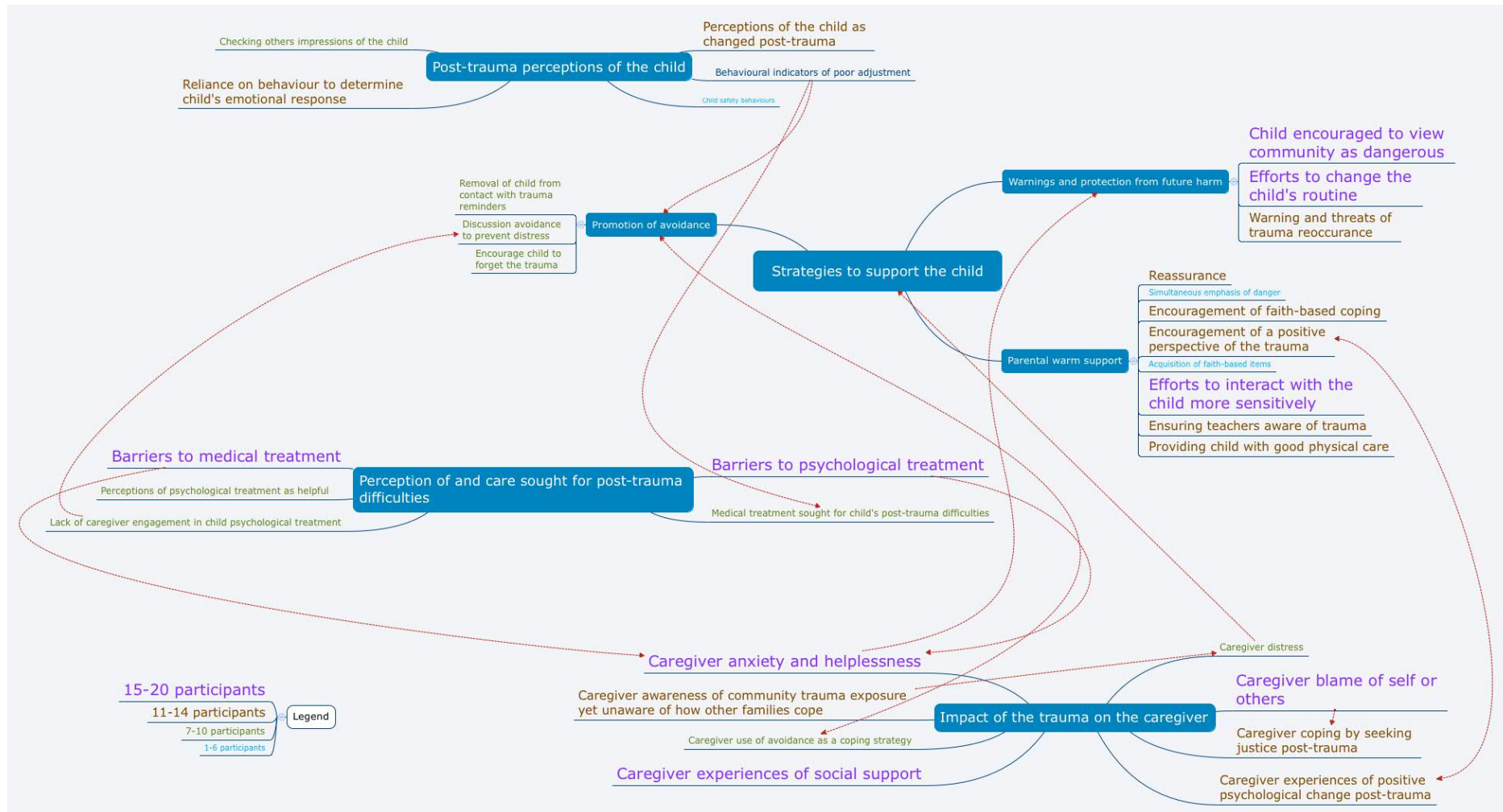


Figure 6.1. Visual representation of themes and sub-themes.

Discussion

The qualitative analysis of caregivers' accounts of caring for their child post-trauma identified themes relating to caregivers' perceptions of their child's coping, strategies used to support their child, the impact of the event on the caregiver, experiences of support and coping strategies employed. The results detail the significant challenges faced by caregivers in supporting their child following trauma exposure in LMIC. Children experienced significant distress post-trauma and caregivers attempted to support their child with several strategies. No evidence of considerable differences in caregiver responses was found between caregivers of children who did and did not meet PTSD criteria, although it was notable that the caregiver of the child with likely PTSD issued particularly catastrophizing warnings of future harm. Given the numerous barriers to psychological treatment, caregivers often struggled to access treatment for their child and felt anxious and unable to adequately care for or protect their child post-trauma. Caregiver involvement in and understanding of their child's psychological treatment was often limited. These findings may have clinical implications for engaging both the child and the parent in psychological services or interventions post-trauma. Given the challenges faced in accessing psychological treatment, it is critical to examine the strategies used by caregivers to support child adjustment.

Caregivers often promoted avoidance strategies to cope with the trauma and discussions of the event with the child were limited. In principle, this may hinder child adjustment post-trauma by impeding the elaboration and processing of the child's trauma memory and preventing the correction of negative appraisals (Ehlers & Clark, 2000). However, the existing evidence base on this point derives primarily from high-income, lower risk contexts. Caregivers' advocacy of avoidant-based strategies in high-risk contexts likely arises out of necessity and provides physical protection. Moreover, previous research in high-risk, urban contexts has found positive psychological outcomes in youth who used avoidant, rather than active, coping strategies (Dempsey, 2002; Grant et al., 2000). One potential explanation is that avoidant coping may be less deleterious in environments of chronic or uncontrollable stressors (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Duncan, 1996; Gonzales, Tein, Sandler, & Friedman, 2001) while active coping strategies in these contexts are less beneficial (Compas et al., 2001; Luthar & Cicchetti, 2000). However, there is extremely limited evidence on this point deriving from high-risk, LMIC samples. Given the chronic child trauma exposure in some LMIC contexts, this is a significant oversight.

Future research should provide a more thorough understanding of the relationship between child avoidant coping and risk context.

A key concern of caregivers was for their child's safety post-trauma. Caregivers perceived their community to be extremely dangerous and unpredictable, which provoked feelings of helplessness and anxiety. Caregivers tried to protect their child from future harm by implementing major socio-environmental changes. Such parental behaviours could be considered as overprotective and potentially maladaptive in a low-risk context (Boksztzanin, 2008; Wood, 2006). However, again, systematic evidence evaluating the psychological impact of such parental behaviours in an environment of ongoing threat, where concerns likely reflect realistic appraisals of future harm, is lacking (Eagle & Kaminer, 2014).

Caregivers also attempted to support their child post-trauma in several warm, positive ways, such as offering reassurance and ensuring that their child's teacher would be understanding. Such supportive parenting behaviours may contribute positively towards child adjustment as high levels of parental support are associated with lower levels of child PTSD symptoms (e.g., Bokczanin, 2008). Furthermore, caregivers encouraged their child to hold a positive view of the trauma and their future, consistent with models of post-traumatic growth (PTG; Tedeschi & Calhoun, 2004). Such positive reframing coping advice has been found to contribute to child PTG and promote adaptive schema change (Kilmer & Gil-Rivas, 2010). Finally, caregivers' acquisition of faith-based protective objects for their child was not only a way for caregivers to protect their child within their available means, but may also reflect a coping mechanism against feelings of helplessness (Galili-Weisstub & Benarroch, 2005). This is likely to be particularly important given the volatile context and scarcity of other resources.

There are several limitations of this study. First, this study only included experiences of female caregivers and future research could include views of male caregivers. The decision to interview female caregivers is in keeping with the cultural context of South Africa where fathers are often absent from the home (Budlender & Lund, 2011; Richter, 2006), with much of the burden of care placed on mothers or other female relatives, such as grandmothers (Foster & Williamson, 2000; Richter, Chikovore, Makusha, 2010; Urassa et al., 1997; van Blerk & Ansell, 2007). Second, only caregiver-report measures were collected and future research should also include child-report measures. Third, whilst efforts were made to ensure data analysis was

reflective of the socio-cultural context, it was not possible to conduct respondent validation in this present study, which must be recognised as a limitation. Finally, bias may have been introduced as the interviews were conducted in Xhosa and translated to English. However, several steps were taken to ensure the rigour and integrity of the data (Morrow, 2005).

Despite these limitations, the findings contribute to the literature in several ways. First, the present study provides preliminary evidence of the strategies used by caregivers in a LMIC context to support child adjustment post-trauma, including the provision of parental warmth and efforts to protect child from future harm. Future research is needed to evaluate the psychological impact of such parental behaviours in an environment of ongoing threat. Second, these findings illustrate the considerable challenges faced by caregivers in caring for their child in high-risk contexts where resources are scarce. The results of this study demonstrate the significant barriers to treatment faced by caregivers and suggest a pressing need for accessible psychological interventions in LMIC following child trauma exposure.

Chapter 7 Discussion

The overall aim of the five papers in this thesis was to investigate the role of parental responses in child adjustment following child trauma exposure. The studies focused on the experiences and challenges faced by parents in providing support for their children in both a relatively low-risk Western and high-risk, non-Western contexts. The focus on parental responses was selected as parents are often children's leading source of support following trauma exposure and parental responses may influence the cognitive and behavioural processes central to the development and maintenance of child PTSS.

7.1. Overview of the Findings

7.1.1. Paper 1: The role of parenting behaviours in childhood post-traumatic stress disorder: A meta-analysis and systematic review

Paper 1 reported on a systematic review and meta-analysis of fourteen studies with the aim of investigating the relationship between parenting and child PTSS through synthesising existing research. Parenting was examined as a function of two polar dimensions, negative (e.g., overprotection, hostility) and positive parenting (e.g., warmth, support).

Although based on a relatively small number of studies, the results of Paper 1 provided evidence of a small, yet highly significant association between post-trauma parenting and childhood PTSD. Negative parenting accounted for a larger proportion of the variance than positive parenting (5% versus 2% of variance). The associations between negative and positive parenting and child PTSS did not differ statistically in magnitude when tested formally. Paper 1 also highlighted the role of several significant moderators of the association between parenting and child PTSD, including study design, trauma type, parenting informant and child gender. Across the overall, negative and positive parenting meta-analyses, studies with a cross-sectional design were found to yield a greater effect. Parenting informant was a significant moderator in the overall and positive parenting meta-analyses, with child report of parenting producing a pattern of greater effects across both analyses. Group trauma was found to yield a significantly larger effect size than individual trauma in the positive parenting and child PTSS analysis. Finally, female gender was a significant moderator in the overall parenting

analysis, with a greater proportion of female children in a study resulting in a greater mean effect size.

As the majority of studies included in this review were cross-sectional in design, the direction of effects, whether or not child PTSS elicit negative parenting practices, remains unclear. Some evidence of a reciprocal relationship between parent behaviour and child psychopathology more broadly has been found (Ge et al., 1997; Huh, Tristan, Wade, & Stice, 2006; Lengua & Kovacs, 2005) and additional research is needed to determine whether this may also be the case in childhood PTSD. The review also revealed methodological weaknesses in the available literature, including potential respondent bias and the use of non-validated measures of post-trauma parenting. Overall, the findings of Paper 1 are consistent with that of McLeod and colleagues (2007) who found that parenting accounted for a distinctly small proportion of the variance in childhood anxiety more generally. However, given the potential influence of several methodological factors, the results should be interpreted with caution and future studies that are methodologically rigorous and include more fathers are needed to further our understanding of the relationship between parenting and child PTSD.

These limitations notwithstanding, the results of this review suggest that there is a significant relationship between parenting and child PTSS; this informed the following four papers in this thesis. Three of these papers focused on exploring parental experiences of parenting a child following child trauma exposure. Paper 4 addressed a methodological limitation identified in this review regarding the use of non-validated measures of post-trauma parenting behaviours.

7.1.2. Paper 2: Parental responses to child experiences of trauma following presentation at Emergency Departments: A qualitative study

Paper 2 reported on an in-depth qualitative investigation of parental experiences of providing support following child trauma exposure and treatment at EDs. Such an investigation was necessary as previous research regarding parents' experiences of providing support for their child following trauma exposure was extremely limited and had not incorporated factors such as treatment from health professionals, which are likely to influence the support strategies used by parents post-trauma (Alisic, Boeijs, Jongmans, & Kleber, 2012).

The results of Paper 2 illustrated that many parents were sensitive to their child's post-trauma distress and reported making themselves available to discuss the trauma

and their child's associated distress. Children often experienced considerable anxiety post-trauma and parents offered children reassurance and initiated confidence building activities to address their child's concerns. Nonetheless, not all parents engaged in discussion about the trauma with their child, and forgetting the trauma and discussion avoidance were encouraged by several parents as coping strategies to avoid further distress. In an effort to foster child adjustment, parents attempted to reinstate their child's pre-trauma routines; however, parental anxiety that their child could re-experience future illness or injury often inhibited this. It is notable that parents of children who met criteria for likely PTSD more consistently reported concerns that their child could re-experience future illness or injury and experienced difficulties resuming pre-trauma routines due to concerns about their child's wellbeing compared to parents of children who did not meet PTSD criteria. Appraisals of problematic care in EDs also contributed to parental anxiety and parents emphasised their need for further information and support regarding their child's physical and emotional recovery. Limitations of this study included: the recruitment of children following single-incident, physical trauma which may not be generalisable to children exposed to chronic trauma or events that did not result in physical injury; and low rates of participation of fathers and other primary caregivers. Despite these limitations, these findings not only provide insight into the strategies used by parents to support child adjustment but also further our understanding of how treatment in EDs can influence parental anxiety and impact the support parents provide to children.

7.1.3. Paper 3: Parental experiences of supporting children with clinically significant post-traumatic distress: A qualitative study of families accessing psychological services

As no child in Paper 2 accessed psychological treatment post-trauma, the findings of that study may not be generalisable to the views of parents whose children experienced clinically significant levels of post-trauma distress. Providing care and support for a child experiencing clinically significant post-trauma distress symptoms may be uniquely challenging and an in-depth understanding of parental attitudes towards psychological services may have implications for child engagement with treatment. Therefore, in-depth qualitative methods were used in Paper 3 to explore parents' experiences of caring for a child who is experiencing clinically significant symptoms following trauma exposure, and parental perspectives of accessing and engaging with psychological treatment for their child post-trauma.

Consistent with Paper 2, thematic analysis indicated that parents were sensitive to their child's distress and offered reassurance and advice to counter children's negative appraisals. Many parents also attempted to facilitate their child's discussion of the trauma and their associated distress as this was thought to be essential to child recovery. Conversely, a number of parents advocated the avoidance of trauma reminders and discussions of the event due to parental uncertainty and concerns that non-avoidant approaches may worsen children's difficulties. Differences in parental responses did not appear to be due to the length of time since trauma. Several barriers were experienced in accessing psychological treatment for children. Once treatment was accessed, parents reported a pressing need for further guidance from therapists on how to support child recovery. During periods where their child experienced acute symptoms, parents reported requiring additional, more flexible support from professionals.

Overall, the findings of Paper 3 show areas of consistency with those of Paper 2. Parents in Papers 2 and 3 reported similar beliefs regarding child younger age as a protective factor for child coping following trauma exposure. Parents in both Papers 2 and 3 were also sensitive to their child's distress and reported responding to their child with warmth, reassurance and support to resume normal activities. However, many parents in Paper 2 found it challenging to reinstate their child's pre-trauma routines due to anxiety that their child could re-experience serious illness or injury which was not reported in Paper 3. Instead, parents of children who met criteria for PTSD in Paper 3 more consistently reported difficulties resuming pre-trauma routines due to their child's ongoing post-traumatic distress and significant symptoms. Parents in both studies also advocated the use of avoidant coping strategies following the trauma. Notably, in Paper 3 parental encouragement of avoidance was due to parental concerns that non-avoidant approaches may worsen children's adjustment difficulties. Parents across both studies also reported a need for formal information regarding child coping following trauma exposure and advice about how to support their child post-trauma.

The two key weaknesses of Paper 3 must be considered. First, all children recruited to this study accessed psychological treatment, which may exclude the views of parents whose children were unsuccessful in accessing treatment post-trauma or the views of parents who chose not to seek formal treatment for their child. Second, the sample was of limited diversity with the majority of participating parents being mothers. Nevertheless, these results expand on the findings of Paper 2 and offer insight

into the experiences of parents in parenting a child with clinically significant post-trauma distress. Future research is needed to explore the impact of the support strategies used by parents on child adjustment.

7.1.4. Paper 4: The Parental Responses to Child Experiences of Trauma Inventory (PRCET): Development and validation

Paper 4 set out to address the methodological shortcomings of the available literature, in particular the use of measures of post-trauma parenting that lack empirical validation and are non-trauma specific. This is particularly relevant as much of the support reported by parents in Papers 2, 3 and 5 was highly trauma specific. The development of the PRCET questionnaire, which measures parental appraisals and behaviours following child trauma exposure, is described in Paper 4. The aim of this study was to explore the underlying factor structure of the PRCET by conducting a preliminary factor analysis. The secondary aim of Paper 4 was to examine the convergent validity of the PRCET in relation to an existing measure of parental overprotection and investigate the relationship between the PRCET sub-scales and child PTSS. Data across four individual studies was collated ($n=226$) and a comprehensive analysis strategy was used, with both PCA and PAF methods utilised. Three parent appraisal factors (Appraisals of Permanent Change, Parental Rumination, and Appraisals of Blame) and five parent behavioural factors (Encouraging Behavioural Avoidance, Overprotection, Continuing Normal Routines, Encouraging Trauma-Related Discussion, and Cognitive Avoidance) with high internal consistency were found. Consistent with the hypothesis, the sub-scales of the PRCET were found to significantly correlate with the Parental Overprotection measure (OP), confirming the construct validity of the PRCET.

The results of Paper 4 also provide evidence in support of associations between particular parental cognitions and behaviours and child PTSD. Specifically, significant positive associations were found between parental advocacy of avoidance, overprotection and appraisals of child and/or family permanent change and child PTSS. Significant negative associations were found between child PTSS and parental efforts to continue normal routines and encouragement of trauma-related discussions. Previous research has found particular parenting practices, such as overprotection and advocacy of avoidance, to be associated with higher levels of child PTSS (Bokszczanin, 2008; Ehlers, Mayou, & Bryant, 2003). As such, these findings supplement the available evidence indicating that parental responses are associated with child PTSS. These

results also suggest that the PRCET may be a valid clinical assessment tool to identify parental responses contributing to poor child outcomes. However, these results must be interpreted with caution as the relationship between the PRCET sub-scales and child PTSD severity varied across samples. Future research with a larger sample using confirmatory factor analysis is recommended.

7.1.5. Paper 5: Caregiver responses to child post-traumatic distress: A qualitative study in a high risk context in South Africa

Of the 14 papers included in the review presented in Paper 1, only two were conducted in a non-Western, high-risk sample (Punamäki, Qouta, & El-Sarraj, 2001; Thabet, Ibraheem, Shivram, Winter, & Vostanis, 2009). An in-depth understanding of parental experiences of providing support to children post-trauma in a relatively low-risk, Western context has been obtained from Paper 2 and Paper 3; however, such parental perspectives may not be generalisable to the experiences of parents in a high-risk context where extreme community violence is the norm. To address this gap, Paper 5 examined the experiences of and challenges faced by parents in supporting their child following trauma exposure in the high-risk, low-resource context of Khayelitsha, South Africa. Semi-structured qualitative interviews were conducted with caregivers about their experience of caring for their child post-trauma, with data analysed using thematic analysis.

The results of this study found that support provided to children post-trauma often prioritised physical safety, reflecting caregivers' anxiety for children's safety and perceptions of the community as dangerous. Caregivers often implemented significant changes to their child's routine in an effort to keep them safe. Caregivers also issued warnings and threats of trauma recurrence to encourage adherence to modified routines. Caregiver warnings appeared to be somewhat catastrophizing in some cases, particularly when criteria for child PTSD was met; although, in many instances caregiver warnings and threats of trauma reoccurrence were likely to reflect realistic concerns given the pervasive violence of the community. Avoidant coping and forgetting the trauma were also advocated by caregivers and children who reported thinking about the trauma were thought to be coping poorly. Caregivers were often aware of their child's distress post-trauma and offered support to children in the form of reassurance, positive re-framing advice and warm parent-child interactions; however, these strategies were not always consistently delivered. Significant barriers to both medical and psychological treatment were also reported and caregivers' engagement in

child psychological treatment was often limited. The limitations of this study must be noted, including the recruitment of only female caregivers and the lack of respondent validation. Despite these limitations, Paper 5 provides some of the first evidence of the strategies used by caregivers in LMIC to support children following trauma exposure. Given the limited access to formal psychological treatment in such contexts, future research is needed to examine the long term impact of the strategies used by caregivers to support child adjustment.

7.2. Strengths and Limitations

The results of the five papers must be considered within the context of the limitations.

7.2.1. Sampling strengths and limitations

The majority of responding parents in all five papers were mothers. In Papers 2, 3 and 4, this was because more mothers volunteered to take part; however, in Paper 5 the decision was made to only interview female primary caregivers. This decision was in line with the cultural context of South Africa, where mothers or other female caregivers provide the majority of care to children and a significant number of fathers are absent from the home (Budlender & Lund, 2011; Richter, Chikovore, & Makusha, 2010). Nonetheless, future research that includes paternal responses is needed to provide a more complete understanding of the role of parental behaviours in childhood PTSD. Additionally, a weakness of Papers 2 and 3 is the limited diversity of the sample, with the majority of participants being from a White British ethnic background. This may limit the generalisability of these findings and this research should be replicated with parents of varied ethnicity.

A strength of Papers 2-5 was that the children in the studies had been exposed to a range of traumatic events, allowing for the collection of a variety of parental experiences. However, it should be noted that the traumatic events reported in Paper 5 were often more severe than those reported in Papers 2-4 and a greater proportion of traumas were of an interpersonal nature (e.g., assault). This is consistent with previous research, which suggests that the rates of violent trauma in South Africa are among the highest globally, with one third of the population reporting exposure to some form of violence (Kaminer, Grimsrud, Myer, Stein & Williams, 2008). Given the risk context and severity of child trauma exposure, caregiver responses in Paper 5, such as efforts to protect their child from future harm may be entirely appropriate whereas similar

responses in Papers 2-4 may be considered overprotective. This difference in context and trauma exposure must be considered when interpreting the results of Papers 2,3, 4 and 5 and comparisons between samples are therefore tentative.

Families in Papers 2, 3 and 4 were recruited from several publically funded EDs and CAMHS. Thus, the samples are likely to reflect demographic characteristics of the local community and be representative of young people referred to health services in England. The recruitment of families from health services represents both a strength and a limitation in that the results may not generalise to the views of parents whose child either did not need medical treatment or were not successful in accessing support from psychological services. This limitation was overcome in Paper 5 through the use of purposive and opportunity sampling methods to recruit local families from the Khayelitsha community. Additionally, the recruitment of participants from CHUMS in Paper 3 ensured that the views of diverse range of parents who sought treatment for their child from organisations other than the National Health Service were well represented in the study. However, when interpreting the findings of Paper 3, it is important to keep in mind the differences in method of accessing treatment between CAMHS and CHUMS families.

7.2.2. Methodological strengths and limitations

The credibility and trustworthiness of the qualitative data collection and analysis in Papers 2, 3 and 5 was ensured in several ways. First, the use of telephone interviews in Papers 2 and 3 may have elicited more honest participant responses as, when interviewing participants regarding sensitive subjects, telephone interviews may increase perceptions of anonymity and result in better data quality (Greenfield, Midanik, & Rogers, 2000). Given the sensitive nature of the qualitative interview topics in Papers 2 and 3, the use of telephone interviews represents a methodological strength. Second, in Paper 5, participant interviews were conducted by trained female data collectors who were residents in the community of Khayelitsha. The choice of data collectors was to facilitate the building of rapport with caregivers which is key for the development of the interview and generation of rich data (Gill, Stewart, Treasure, & Chadwick, 2008). Third, respondent validation was conducted in Papers 2 and 3 by providing all participants with a summary of the interview findings and preliminary interpretations of the data, which enhanced the credibility and trustworthiness of the data via soliciting participant feedback (Torrance, 2012). This form of member checking was not possible in Paper 5, and this must be recognised as a limitation. Finally, several strategies

imperative for rigorous qualitative data analysis were used, including the adoption of an appropriate and well recognised method of data analysis (Braun & Clarke, 2006), researcher reflexivity, and peer-debriefing (Morrow, 2005; Shenton, 2004).

The collection of only parent report of child PTSS and trauma exposure in Paper 5 is a limitation of this study. Additionally, in Paper 3 parents in two families refused their child's participation in completing study questionnaires, and the same applied to one family in Paper 2. This refusal for their child to participate may reflect the influence of parental beliefs and behaviours on child adjustment through the discouragement of trauma related discussions. As previous research has shown poor agreement between parent and child report of PTSS (Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007; Stover, Hahn, Im, & Berkowitz, 2010), caution must be used in interpreting the results of the parent-report symptom measures. Whilst Papers 2, 3, 4 and 5 provide insight into parental experiences of providing support to children post-trauma, parental responses reflect perceptions of parenting, which may not align with observed parenting behaviours, and the possible influence of social desirability bias must be acknowledged. Future research investigating child perspectives of parental support behaviours and strategies is needed to provide further insight into the acceptability and effectiveness of such behaviours.

Parental psychopathology has been found to be significant risk factor for child PTSD (Leen-Feldner et al., 2013; Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012) and parents' own psychological difficulties may make it more challenging for parents to provide their children with the support needed post-trauma (McFarlane, 1987; Morris, Gabert-Quillen, & Delahanty, 2012; Vernberg, Silverman, La Greca, & Prinstein, 1996). This is supported by the results of Papers 2, 3 and 5, as parental anxiety and feelings of helplessness reportedly contributed to parents' use of particular, potentially maladaptive, strategies, such as promotion of avoidance. The inclusion of measures of parental psychopathology in Papers 1 and 4 may have provided further insight into how parental psychopathology mediates the relationship between parenting behaviours and child PTSS and an exploration of parental psychopathology would be worthwhile in future studies. Finally, as parents provided information regarding both parenting behaviours and child PTSS in Paper 4 and in several studies included in Paper 1, the potential for single informant bias must be considered when interpreting the findings.

7.3. Implications

7.3.1. The role of parental warmth in childhood PTSD

Parents across Papers 2, 3 and 5 consistently reported the use of warmth to support their child following the traumatic event. Parents of children who met criteria for likely PTSD were not found to differ from parents of children who did not meet PTSD criteria in terms of the warm support they offered their child in Papers 2, 3 and 5. Overall, there were several notable similarities in the behaviours described within the general themes of warmth across Papers 2, 3 and 5, including offering children reassurance, encouraging children to feel safe and providing positive reframing advice. Such parental responses may have implications for child adjustment. For example, previous studies have found that parental provision of positive reframing advice is associated with lower levels of child distress (Gil-Rivas, Silver, Holman, McIntosh, & Poulin, 2007) and such advice may potentially foster child perceptions of safety and security. On the other hand, dysfunctional negative appraisals following trauma exposure, such as “the world is dangerous,” are thought to contribute towards an individual’s sense of serious current threat which is central to the development and maintenance of PTSD (Ehlers & Clark, 2000; Salmon, Sinclair, & Bryant, 2007; Stallard & Smith, 2007). Therefore, the provision of such parental warmth with an emphasis on fostering child appraisals of safety, may promote positive child adjustment. However, in both Papers 3 and 5 parents also reported a simultaneous emphasis of danger where children were encouraged to be vigilant. This emphasis of danger could reflect parents’ own anxieties following the child’s traumatic event (Cobham & McDermott, 2014) and may be particularly obstructive to a child’s recovery as greater communication to children regarding danger following trauma exposure has been found to be associated with higher levels of child PTSS (Cobham & McDermott, 2014). Nonetheless, the context of ongoing risk in such populations must be considered and parental warnings may serve to ensure children’s physical safety in high-risk environments. Therefore, the impact of the simultaneous emphasis of danger in parental reassurance by parents in LMIC samples exposed to significant trauma and in low-risk, Western samples where children are experiencing clinically significant levels of post-trauma distress on child outcomes warrants future research.

Notably, the results of the meta-analysis conducted in Paper 1 found that parental warmth accounted for a small, but significant percentage of the variance in childhood PTSD. Overall, parental warmth appeared to be less clearly and consistently

associated with child PTSS than negative parenting behaviours. One potential explanation for the small percentage of variance accounted for by positive parenting may be due to the greater impact of a negative family atmosphere on child PTSS than warm or supportive parenting behaviours (Boksztzanin, 2008; La Gaipa, 1990). High levels of conflict at home may be interpreted by children as a lack of support and contribute towards children's post-trauma adjustment difficulties (La Gaipa, 1990; La Greca & Bearman, 2003; Udwin, Boyle, Yule, Bolton, & O'Ryan, 2000). As parents across cultures were found to attempt to support child adjustment through enhanced parental warmth, future interventions that aim to reduce parent-child or family conflict and reduce parental communications of danger may be more effective than those that aim to bolster sensitive, warm parenting alone. However, it is important to note that the difference in effect sizes for the positive and negative parenting dimensions was not significant when formally tested; therefore, caution must be used when determining the relative impact of negative versus positive parenting practices.

Overall, the finding that parents' attempts to foster child adjustment by providing warm support across both relatively low-risk, Western and high-risk, non-Western contexts suggests that parental warmth may represent a natural response following child trauma exposure and contributes to our understanding of how parents attempt to foster child post-trauma recovery cross-culturally (Punamäki et al., 2001; Thabet et al., 2009). However, caution is needed when making direct comparisons between the findings of Papers 2, 3 and 5 as the traumatic events reported in Paper 5 were often interpersonal and more severe. Further research is needed to understand child attitudes towards and perceptions of parenting strategies, such as parental warmth, following trauma exposure.

7.3.2. The role of parental encouragement of avoidance in child PTSD

The findings from Papers 2-5 highlight parental advocacy of avoidant coping in response to child trauma exposure. In Paper 4, the Encouraging Behavioural Avoidance sub-scale was positively and significantly associated with child PTSS with a large effect, irrespective of respondent or measurement type (e.g., child or parent report, interview, questionnaire). A number of parents in Papers 2,3 and 5 advocated the use of avoidance as a coping strategy and parent-child discussions of the trauma were limited in some cases as parents reported waiting for children to initiate such conversations. This is consistent with previous research that has found that children and parents both avoid discussing traumatic events for fear of distressing each other (Meiser-Stedman,

Yule, Dalgleish, Smith, & Glucksman, 2006). Parental advocacy of avoidance may hinder child adjustment as the promotion of avoidant coping strategies has been found to be associated with higher levels of child PTSS (Ehlers et al., 2003). Parental advocacy of avoidance, particularly in Paper 3, appeared to stem from parental concerns of worsening children's adjustment difficulties through the use of non-avoidant approaches. This insight regarding the parental concerns which contribute to the encouragement of potentially maladaptive coping strategies has the potential to inform clinical practice and future interventions aiming to target parental advocacy and child use of avoidant coping strategies.

It is thought that the use of non-avoidant coping behaviours will result in more positive child outcomes as non-avoidant responses, including elaborative parent-child discussions of the trauma, may improve the child's trauma memory and provide parents the opportunity to correct their child's negative appraisals, thus fostering child adjustment (Fivush, Hazzard, McDermott Sales, Sarfati, & Brown, 2003; Salmon & Bryant, 2002). This notion is supported by the findings of Paper 4 that the PRCET subscale of Encouraging Trauma-Related Discussions was significantly negatively associated with child PTSS. However, much of the evidence for harmful effects of avoidant coping has been derived from relatively lower risk contexts, including Paper 4. Approach coping strategies have been found to result in less beneficial effects for youth in high-risk, urban contexts, whilst avoidant coping behaviours were associated with more positive child adjustment (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Duncan, 1996; Gonzales, Tein, Sandler, & Friedman, 2001; Luthar & Cicchetti, 2000). These results highlight the need for future research exploring the implications of parental encouragement of avoidance for child adjustment as a function of risk context

7.3.3. The role of parental efforts to protect children from future harm

The findings across the three qualitative studies illustrate parents' significant concerns for their child's safety and wellbeing following the trauma. In response to these concerns, parents in Papers 2 and 5 implemented significant changes to their family's routine to protect children from future harm. In Paper 2, this parental response was particularly evident in parents of children who met criteria for likely PTSD. This strategy was more pronounced in Paper 5 as caregivers made considerably greater changes to pre-trauma routines, including attempted changes to their child's school or friendships, and issued warnings and threats of trauma reoccurrence to ensure children

adhered to the modified routines. This difference likely reflects the risk context in which families reside and no parent in Paper 2 reported concerns that their community was extremely dangerous. In a low-risk context, this parental response could be considered overprotective and potentially maladaptive as parental overprotection has been found to be associated with higher levels of child PTSS (Boksztzanin, 2008).

The negative implications of parental overprotection in childhood PTSD are supported by the findings of Papers 1 and 4. The results reported in Paper 1 delineate the significant association found between negative parenting behaviours and child PTSD, with overprotection found to be more clearly and consistently associated with child PTSS than other parenting behaviours, such as hostility. Moreover, the Overprotection sub-scale of the PRCET in Paper 4 was found to be strongly and significantly associated with parent-report of child PTSS, providing support for the fact that parental overprotection is associated with poorer child outcomes following trauma exposure. However, these findings, and the majority of other evidence supporting the idea that parental overprotection is associated with poorer child outcomes, have been based in Western, low-risk contexts. In a high-risk, LMIC context, parental efforts to protect children from future harm may be necessary given the chronic and uncontrollable stressors present in such environments and this parental response could foster positive adaptation by physically protecting children from harm (Duncan, 1996; Eagle & Kaminer, 2013). However, systematic evidence evaluating the psychological impact of such parental behaviours in a high-risk environment, where concerns likely reflect realistic appraisals of future harm, is lacking (Eagle & Kaminer, 2014). The findings of Papers 2 and 5 highlight the need to consider the risk context in determining the appropriateness of particular parental responses and additional research is needed to fully evaluate the impact of parental overprotection on child post-trauma recovery in high-risk contexts of ongoing threat.

Parental overprotection was not a unanimous response and parents in Papers 2 and 3 reported attempts to resume their family's pre-trauma routines to foster their child's emotional and physical recovery. Particular difficulties in resuming normal routines were reported in cases where children met criteria for likely PTSD in Papers 2 and 3 due to children's ongoing post-traumatic symptoms or parental concerns that the child may re-experience serious illness/injury. The relationship between reinstatement of pre-trauma routines and child outcomes is not well understood as research has yielded mixed findings (Boyce, 1981; Foy, 1992; Prinstein, La Greca, Vernberg, &

Silverman, 1996). In Paper 4, there was a significant negative association between the PRCET Continuing Normal Routines sub-scale and parent-report of child PTSS. However, the associations were small and varied by sample. Despite these limitations, the results of Paper 4 suggest that parental continuation of pre-trauma routines may be associated with positive child outcomes. As this is a strategy being utilised by parents of children both with and without clinically significant PTSS, further research is required to explore the implications and clinical utility of this approach. Should this strategy prove to foster child adjustment post-trauma, efforts to facilitate reinstatement of family routines by healthcare providers, particularly in cases where children meet PTSD criteria, may be beneficial for children and their families.

7.3.4. The use of behavioural indicators of child coping

As demonstrated in Papers 2, 3, and 5, parents heavily rely on children's post-trauma behavioural cues to inform their understanding of child coping. Parents reported comparing their child's post-trauma behaviour to their pre-trauma behaviour or to the behaviour of other children to determine whether their child was coping following trauma exposure. A reliance on child behavioural cues to establish how well they were coping was particularly pronounced in Paper 5 and there were limited caregiver-child discussions to determine the cause of child behavioural changes. This is consistent with the results reported by Alisic et al. (2012) who found that parents compare their child's pre and post-trauma behaviour, compare their child's post-trauma behaviour to the behaviour of siblings, and seek others impressions of the child to determine children's needs. This reliance on behavioural cues to determine post-trauma coping may limit parental capacity to report on child internalising symptoms and may in part explain the poor agreement between parent and child reports of child PTSS (Meiser-Stedman, Smith, Glucksman, Yule, & Dalgleish, 2007; Stover et al., 2010). This possibility warrants future research.

7.3.5. Longitudinal and experimental research

Given the nature of the studies in this thesis, it is not possible to know (i) whether parenting behaviours maintain or are a reaction to child post-traumatic stress symptoms, and whether (ii) the provision of the formal guidance desired by parents will result in more positive child outcomes.

Paper 1 reported on the finding that study design was a significant moderator of the association between overall, negative and positive parenting behaviours and

childhood PTSD, with smaller effects found in longitudinal studies. The weaker effect found in longitudinal studies might suggest an influence of the child on parenting behaviours. This would be consistent with the child anxiety literature more broadly, where a small number of studies have found preliminary evidence that child psychopathology predicts negative parenting (Natsuaki et al., 2013; Nelemans, Hale, Branje, Hawk, & Meeus, 2014). However, as the majority of studies included in Paper 1 were cross-sectional in design, the direction of association, whether child post-traumatic difficulties provoke negative parenting behaviours or vice versa or whether both are influenced by another variable, remains uncertain and prospective studies are needed to provide further insight.

The results of Papers 2 and 3 highlight that parents desire formal guidance from health professionals following child trauma exposure, including information regarding children's physical and emotional recovery and indicators of poor child coping. Evidence suggests that interventions for children who have experienced trauma that have an emphasis on parent psychoeducation, support and guidance are effective in terms of reducing parental stress and symptoms of PTSD as well as child PTSS (Als, Nadel, Cooper, Vickers, & Garralda, 2015; Colville, Cream, & Kerry, 2010; Rachamim, Mirochnik, Helpman, Nacasch, & Yadin, 2015). However, these findings must be interpreted with caution given the small study samples sizes. In terms of guidance regarding physical recovery, the provision of information to parents of hospitalised children has been found to reduce parental stress and is associated with more supportive parent-child interactions (Cobiella, Mabe, & Forehand, 1990; Davidson et al., 2007; Melnyk, Crean, Feinstein, Fairbanks, & Alpert-Gillis, 2007). The results of Papers 2 and 3 provide valuable insight into what guidance parents would find useful following child trauma exposure which could inform the advice offered to families in EDs and CAMHS in the future; however, exploratory randomised control trials are needed to understand the effect of such information on the child and family post-trauma experience.

7.4. Clinical Implications

7.4.1. Parenting behaviour as a target for treatment in child PTSD

The five papers in this thesis highlight the question of whether parenting behaviours may be a useful target for intervention following child trauma exposure. The results of Papers 1 and 4 provide evidence of a small, yet significant association

between post-trauma parenting and childhood PTSD. However, as Paper 4 and the majority of studies in Paper 1 were cross-sectional it is not possible to determine whether parenting plays a causal role in child PTSS following trauma exposure. Therefore, it is tentatively suggested that individual treatment for children initially following trauma exposure may be most beneficial. A number of treatments have been proposed to treat childhood PTSD, with Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) among the most effective (Cohen, Deblinger, Mannarino, & Steer, 2004; Kowalik, Weller, Venter, & Drachman, 2011; Nixon, Sterk, & Pearce, 2012; Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011; Silverman et al., 2008). However, there may be some benefit in simultaneously addressing particularly negative or anxious parenting practices in treatment. The findings of Papers 1 and 4 suggest that parental overprotection is significantly associated with child PTSS, which is in keeping with previous research (Boksaczanin, 2008). Therefore, a potentially beneficial supplement to child treatment may include a session for parents to consider and discuss the adverse implications of negative parenting practices, such as overprotection, on child adjustment with a clinician and the provision of support and guidance for behaviour change (Cobham, McDermott, Haslam, & Sanders, 2016). In a similar vein, the finding that positive parenting accounts for only 2% of the variance in childhood PTSD may potentially be due to the impact of a negative family atmosphere on child adjustment (Boksaczanin, 2008; Meiser-Stedman et al., 2006). This is supported by the finding that adult patients with PTSD whose relatives score highly on scales of expressed emotion with high levels of criticism have poorer treatment outcomes than patients whose families exhibit low expressed emotion (Tarrier, Sommerfield, & Pilgrim, 1999). Therefore, efforts to improve poor family communication following child trauma exposure could possibly be advantageous to child recovery. However, as the direction of effects, whether child symptoms evoke negative parenting or vice versa, remains unclear, it is also possible that effective treatment of child PTSS alone may lead to changes in parenting practices. Overall, these implications underscore the need for further research to examine the potential utility of an assessment of post-trauma parenting practices and family functioning when a child is referred to mental health services for post-traumatic stress.

7.4.2. The need for information provision following child trauma exposure

The results of Paper 2 highlight the lack of information offered to parents regarding child physical recovery from medical professionals following child trauma

exposure. A perceived lack of information from EDs about child recovery contributed to parental anxiety about their child's physical health and often lead to the implementation of strategies to preserve child wellbeing, such as changing routines and monitoring them closely. This parental response could be described as overprotective and such parenting behaviours are thought to have negative implications for child psychological recovery (Bokzczanin, 2008). The results of Paper 2 highlight the need for more effective professional-parent communication about their child's physical recovery in EDs. Improved communication with parents in EDs may benefit families post-trauma as the provision of recovery information to parents of in-patient children has been found to be associated with reduced parental stress and better parent-child interactions (Davidson et al., 2007; Melnyk, Crean, Feinstein, Fairbanks, & Alpert-Gillis, 2007).

In addition to the lack of physical recovery information provided in EDs, emotional support or advice to facilitate child coping was also not routinely provided to parents in Paper 2. This is particularly notable as 15% of children in Paper 2 met criteria for a likely PTSD diagnosis, consistent with rates found in similar samples (Davidson et al., 2007). The results of Paper 2 indicate a need for trauma-informed ED care, including the assessment of trauma-specific distress and family needs post-trauma (Kazak et al., 2005). These findings also suggest a role for medical ED staff in the sensitive delivery of information regarding children's psychological recovery on discharge, including psycho-education about common reactions and coping strategies to improve family adjustment post-trauma which should be investigated in future research (see Table 7.1).

In cases where children were engaged in psychological treatment, the results of Paper 3 illustrated the support and guidance expected by parents of children experiencing clinically significant levels of distress following trauma exposure. Parents expected to receive guidance about how they could best support their child's psychological recovery, information about what child responses to look out for as signs of poor post-trauma coping, and advice to help them better understand their

Table 7.1

Practical implications for healthcare professionals

a	Parenting behaviours account for a small, yet significant proportion of the variance in childhood PTSD symptoms.
b	Parental anxiety and concerns about worsening child symptoms influence the strategies used by parents to support child recovery post-trauma; resulting in overprotection and advocacy of avoidant coping. Clinicians should consider the role of parental anxiety when aiming to address maladaptive parenting practices post-trauma.
c	Parents experience high levels of distress and helplessness following child trauma exposure. Some parents do not receive a referral to psychological treatment, despite contact with clinicians to arrange treatment for their child. The assessment of parent symptoms during the course of child PTSD treatment, with efforts made to increase the referral of parents to treatment, may be beneficial.
d	Parents perceive children as vulnerable following ED attendance. A perceived lack of information from EDs about their child's physical recovery contributes to parental anxiety regarding child wellbeing. Effective communication with parents in EDs regarding child recovery may be helpful.
e	No emotional support or advice to facilitate child coping was routinely available to families in EDs. The role of medical staff in the sensitive delivery of information regarding children's psychological recovery on discharge, including psycho-education about common reactions and coping strategies to improve family adjustment post-trauma could be considered.
f	Several barriers to psychological care for children post-trauma were reported. This suggests a need for more accessible psychological interventions for children following trauma exposure.
g	High levels of parental engagement in child treatment post-trauma was experienced by parents as helpful as this improved parental understanding of their child's experience and reduced parental anxiety.
h	Low levels of parental engagement in child treatment in LMIC may be a target for future intervention. Psychoeducation for parents about TF-CBT may potentially improve parental engagement.
i	Parents expect to receive advice and strategies from clinicians about child responses that are indicative of poor coping post-trauma and how they can best support their child's recovery. Advice and reassurance from therapists regarding child psychological treatment and recovery was experienced as beneficial.
j	During "crisis points" of acute child psychological symptoms, additional, more flexible support is needed by parents from clinicians to support child recovery post-trauma.

Note: LMIC = lower and middle income contexts. EDs= Emergency Departments.

PTSD= post-traumatic stress disorder. TF-CBT = trauma-focused cognitive behavioural therapy.

child's experience. Without this information, parents reported feeling anxious and unprepared about how to manage their child's symptoms, particularly when symptoms became acute. This suggests a need for the delivery of additional, targeted information and advice for families from mental health professionals following child trauma exposure. As parent and child satisfaction with psychological services is strongly associated with treatment completion and function improvement more generally (Garland, Haine, & Boxmeyer, 2007; Oruche, Downs, Holloway, Draucker, & Aalsma, 2014; Ronzoni & Dogra, 2012), the provision of such information could potentially improve psychological interventions and experiences of clinical care.

7.4.3. Parental psychopathology as a target in treatment of child PTSD

Parental anxiety and perceptions of their child as vulnerable and concerns about worsening child symptoms influenced the strategies used by parents to support child recovery; resulting in overprotection and advocacy of avoidant coping which may have potentially maladaptive consequences for child adjustment (Ehlers et al., 2003; McFarlane, 1987). These findings suggest that clinicians may need to consider the impact of parental anxiety when they are aiming to address maladaptive parenting practices. However, notably, parental anxiety reportedly stemmed from a lack of guidance on how to support children's physical and emotional recovery in Papers 2 and 3. The results also provide insight into how parents would prefer to receive guidance, as parents in Paper 2 preferred to receive advice about their child's recovery from a clinician in person, rather than seeking information from the internet which was often seen as unreliable.

In addition to significant anxiety, a number of parents across Papers 2, 3 and 5 reported feeling high levels of distress and helplessness following their child's trauma exposure. Parental post-traumatic distress has significant implications for child outcomes as parents with PTSD may model or advocate maladaptive coping strategies and have been found to be more disengaged from their child (Gewirtz, Polusny, DeGarmo, Khaylis, & Erbes, 2010; McFarlane, 1987). Although parents were in contact with several agencies to access psychological treatment for their child, some parents in Paper 3 did not receive a referral themselves despite their own significant distress. Parents who were able to access psychological treatment for their own adjustment difficulties reported the experience as helpful to their own psychological recovery. The lack of treatment offered to parents post-trauma is likely to have implications for child recovery as parents who receive psychological treatment may be better able to cope

with the traumatic event and, in turn, provide the necessary support for their child (Hamblen & Barnett, 2003). It may be advantageous to assess parent symptoms during the course of child PTSD treatment, with efforts made to increase the referrals offered to parents following child trauma exposure.

7.4.4. Parental perceptions of and engagement in psychological treatment for child adjustment difficulties

The results of Papers 3 and 5 provide an in-depth understanding of how parents experience accessing and engaging with formal psychological treatment for their child following child trauma exposure. Parents in both studies experienced significant challenges in accessing psychological support for their children, with reasons including parental unawareness of available services, treatment being too expensive, or infrequent or poorly arranged follow-up appointments. This parental experience of formal psychological services being difficult to access is consistent with the limited literature on the subject (Coyne et al., 2015). These findings further our understanding of the challenges faced by parents in trying to obtain access to treatment to manage their child's significant post-traumatic distress and suggest a need for more accessible psychological interventions.

If child treatment is successfully accessed, parental engagement in treatment is thought to be beneficial as it may allow parents to understand further their child's traumatic experience through the co-construction of the trauma narrative, as well as help children practice their therapeutic coping strategies at home (Chowdhury & Pancha, 2011; Cobham et al., 2016; Schneider, Grilli, & Schneider, 2013). High levels of parental engagement in child treatment were reported in many families in Paper 3. Parents reported a more thorough understanding of their child's trauma exposure and post-traumatic distress as a result of their involvement in child treatment. The provision of guidance from therapists about activities to do with children in-between treatment sessions was experienced as very valuable and reportedly reduced parental anxiety. Given the nature of this study, it is not possible to infer whether parental engagement in child treatment lead to treatment gains. However, the findings suggest parental engagement in child treatment is perceived to be helpful in supporting child recovery and reducing parental distress.

Notably, in Paper 5, child discussions of the trauma and the provision of coping advice were thought to be best conducted with a clinician, rather than the caregiver.

Caregivers' understanding of and involvement in their child's treatment was often limited, with low-levels of therapist-parent collaboration reported. Clinical research has supported the need for familial engagement in child treatment following trauma exposure as this results in a reduction of child symptoms and lower drop-out rates (Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011; Dorsey et al., 2014; Saxe, Heidi Ellis, Fogler, & Navalta, 2012) and the low caregiver engagement found in Paper 5 may represent an obstacle to child recovery and a target for future intervention. Poor parental engagement in child TF-CBT in Zambia has also been found by Murray et al. (2014) who suggest an additional session is offered to parents to provide psychoeducation about the purpose and nature of TF-CBT to improve parental engagement. A similar approach may be beneficial in this context and further research is needed to explore effective means of improving parental engagement in child treatment in LMIC.

7.5. Conclusion

The results of the papers included in this thesis indicate that parenting responses are associated with child PTSS. There is good evidence that the relationship between parenting behaviours and child PTSS is small yet highly significant. This is of particular importance as parents are often children's leading source of support following trauma exposure. These research findings expand on the limited literature into parental perspectives following child trauma exposure and highlight the common strategies used to foster child recovery across both low-risk, Western and high-risk, LMIC contexts. However, the impact of parental support strategies on child adjustment is less clear, particularly in high-risk contexts. The need for future research exploring the implications of parental strategies on child adjustment as a function of risk context is a distinct gap identified by this research. It is also evident that additional research is needed to explore post-trauma parenting practices in more demographically diverse samples with a greater representation of fathers.

The results of these papers also have several clinical implications. First, this research highlights the numerous barriers to psychological treatment for children following traumatic experiences, indicating a need for more accessible interventions. Second, whilst this research cannot determine whether parental engagement lead to child treatment benefits, parental involvement in child treatment was experienced as beneficial and efforts to foster parental engagement could be explored in future research. Third, the findings provide insight into the information desired by parents from health professionals following child trauma exposure, and prospective studies are

needed to explore whether the provision of such targeted support results in positive child outcomes. Finally, given that parental support strategies appear to be driven by parental psychopathology, in particular parental anxiety, the inclusion of parental assessment in child treatment may serve as a helpful adjunct to the child's treatment.

Taken together, these findings appear to indicate that parental responses can influence the cognitive and behavioural processes central to the development and maintenance of child PTSD. This research has utilised both self-report and qualitative interview methods and provides unique insight into parental perspectives of supporting child post-trauma recovery in both low-risk, Western and high-risk, non-Western environments. Future research should aim to examine parenting behaviours and the role of parents in child treatment in greater detail using longitudinal, prospective and experimental studies to further our understanding of the development and maintenance of child PTSD and child recovery following trauma exposure.

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Appendices

Appendix 1: Paper 1 Quality Rating Manual

Manual for Quality Scoring

How to Calculate the quality score:

- **Total sum** = (number of “yes” *2)+(number of “partials” *1)
- **Total possible sum** = 18- (number of “N/A” * 2)
- **Total possible score** = 18

1. Question or objective sufficiently described?

Yes: Is easily identified in the introductory section (or first paragraph of methods section). Specifies (where applicable, depending on study design) all of the following: purpose, subjects/target population, and the associations under investigation. A study purpose that only becomes apparent after studying other parts of the paper is not considered sufficiently described.

Partial: Vaguely/incompletely reported (e.g., “describe the effect of” or “examine the role of” or “assess opinion on many issues” or “explore the general attitudes” ...); or some information has to be gathered from parts of the paper other than the introduction/background/objective section.

No: Question or objective is not reported, or is incomprehensible.

N/A: Should not be checked for this question.

2. Design evident and appropriate to answer study question?

(If the study question is not given, infer from the conclusions).

Yes: Design is easily/readily identified and is appropriate to address the study question/objective.

Partial: Design and /or study question not clearly identified, but gross inappropriateness is not evident; or design is easily identified but only partially addresses the study question.

No: Design used does not answer study question (e.g., a comparison group is required to answer the study question, but none was used); or design cannot be identified.

N/A: Should not be checked for this question.

3. Method of participant selection described and appropriate?

Yes: Selection strategy designed (i.e., consider sampling frame and strategy) to obtain an unbiased sample of the relevant target population or the entire target population of interest (e.g., all individuals exposed to an earthquake). Where applicable, inclusion/exclusion criteria are described and defined. Sufficient relevant baseline/demographic information clearly characterizing the participants is provided (or reference to previously published baseline data is provided). Differences between those who do and don't take part are well described.

Partial: Selection methods (and inclusion/exclusion criteria, where applicable) are not completely described, but no obvious inappropriateness. Or selection strategy is not ideal (i.e., likely introduced bias) but did not likely seriously distort the results. Where sample is described in vague terms (e.g., "trauma exposed children") and sampling strategy is unclear. Or the study reports incomplete relevant baseline / demographic information (e.g., information on likely confounders not reported). Differences between those who do and don't take part are not sufficiently described.

No: No information provided. Or obviously inappropriate selection procedures (e.g., trauma study group included those without trauma exposure). Or presence of selection bias (e.g., methods used ensured that the sample obtained is not representative of the population intended to be analysed) which likely seriously distorted the results.

N/A: Should not be checked for this question.

4. Sample size appropriate?

Yes: Seems reasonable with respect to the outcome under study and the study design. Is the sample size given their target population reasonable? If a sub-sample was used as part of the study is the selection of the subsample described?

Partial: Insufficient data to assess sample size (e.g., sample seems "small" and there is no mention of power/sample size/effect size of interest and/or variance estimates aren't

provided). Sample size is reasonable but given the study characteristics a larger sample could have been recruited. There is a high dropout or not responding rate (attrition rate over 20% or under 70% of sample retained at time periods)

No: Sample size is obviously not appropriate, very low number given the inclusion criteria and attrition rate greater than 40% at T1/2/3/etc.

N/A: Should not be checked for this question.

5. Outcome measure(s) of parenting & child PTSD symptoms (PTSS) well defined

Yes: A clear description of the parent behaviour to be studied and how child PTSD will be assessed is provided. A clear description (or reference to clear description) of questionnaire/interview content and response options is provided.

Partial: The definition of measures and their contents leaves room for subjectivity, or uncertainty (i.e., measures not reported in detail, but probably acceptable).

No: Measures not defined, or are inconsistent throughout the paper. Or measures employ only ill-defined, subjective assessments, e.g., “anxiety” or “pain.” Or obvious misclassification errors/measurement bias likely seriously distorted the results (e.g., a prospective cohort relies on self-reported outcomes among the “unexposed” but requires clinical assessment of the “exposed”). No description of questionnaire/interview content or response options.

N/A: Should not be checked for this question.

6. Quality/robustness of measurement(s) of parenting and child PTSS?

Yes: The measure is well validated (e.g., scale has been tested on a similar population before and author provides reference). If the scale was translated, efforts were made to ensure this was done accurately. Cronbach alpha/internal consistency reported (above .70)

Partial: Cronbach alpha and validity not reported (or Cronbach alpha is below .70) but measure is likely to be acceptable for use.

No: Measure has not been tested before and is not validated.

N/A: Should not be checked for this question.

7. Analytic methods (of parenting and child PTSS) described/justified and appropriate?

Yes: Analytic methods of how parenting and child PTSS were analysed are described (e.g., “chi square”/ “t-tests”/“Kaplan-Meier with log rank tests”, etc.) and appropriate.

Partial: Analytic methods are not reported and have to be guessed at, but are probably appropriate. Or minor flaws or some tests appropriate, some not (e.g., parametric tests used, but unsure whether appropriate; control group exists but is not used for statistical analysis). Or multiple testing problems not addressed.

No: Analysis methods not described and cannot be determined. Or obviously inappropriate analysis methods (e.g., chi-square tests for continuous data, SE given where normality is highly unlikely, etc.). Or a study with a descriptive goal/objective is over-analysed.

N/A: Descriptive case series / reports.

8. Results reported in sufficient detail?

Yes: Results include major outcomes (e.g., parenting behaviour and child PTSS) and secondary outcomes.

Partial: Quantitative results reported only for some outcomes. Or difficult to assess as the study question/objective is not fully described (and is not made clear in the methods section), but results seem appropriate.

No: Quantitative results are reported for a subsample only, or “n” changes continually across the denominator (e.g., reported proportions do not account for the entire study sample, but are reported only for those with complete data - i.e., the category of “unknown” is not used where needed). Or results for some major or mentioned secondary outcomes are only qualitatively reported when quantitative reporting would have been possible (e.g., results include vague comments such as “more likely” without quantitative report of actual numbers).

N/A: Should not be checked for this question.

9. Do the results support the conclusions?

Yes: All the conclusions are supported by the data (even if analysis was inappropriate). Conclusions are based on all results relevant to parenting and child PTSS, negative as well as positive ones (e.g., they aren't based on the sole significant finding while ignoring the negative results). Part of the conclusions may expand beyond the results, if made in addition to rather than instead of those strictly supported by data, and if including indicators of their interpretative nature (e.g., "suggesting," "possibly").

Partial: Some of the major conclusions are supported by the data, some are not. Or speculative interpretations are not indicated as such. Or low (or unreported) response rates call into question the validity of generalising the results to the target population of interest (i.e., the population defined by the sampling frame/strategy).

No: None or a very small minority of the major conclusions are supported by the data. Or negative findings clearly due to low power are reported as definitive evidence against the alternate hypothesis. Or conclusions are missing. Or extremely low response rates invalidate generalising the results to the target population of interest (i.e., the population defined by the sampling frame/ strategy).

N/A: Should not be checked for this question.

Appendix 2: Paper 1 Data Extraction

Data extraction for the systematic review and meta-analysis

Study author	Year of publication	Country conducted	Design	Mean age (SD)	% Male children	% Mothers	No. of children at T1
Bokszczanin	2008	Poland	Cross-sectional	15.96 SD 2.50	39.96%	Not reported	503
Kelley et al.	2010	USA	Longitudinal	12.0 SD 2.0	Not reported	99.47%	381
Keppel-Benson et al.	2002	USA	Cross-sectional	11.6 SD 3.2	58.00%	88.00%	50
Le Brocque et al.	2010	Australia	Longitudinal	10.69 SD 2.31	64.00%	84.00%	175
Marsac et al.	2013	USA	Longitudinal	12.1 SD 2.7	70.00%	82.00%	82
Meiser-Stedman et al.	2006	UK	Longitudinal	13.8 SD 1.9	60.60%	97.00%	33
Punamaki et al.	2001	Palestine	Longitudinal	14.04 SD.79	48.84%	100.00%	86
Rosario et al.	2007	USA	Longitudinal	11.80 (.71)	50.22%	Not reported	613
Thabet et al.	2008	Gaza Strip	Cross-sectional	13.7 SD 1.05	48.50%	Not reported	412
Valentino et al.	2010	USA	Cross-sectional	12.1 SD 2.9	46.15%	89.00%	91
Vernberg et al.	1996	USA	Cross-sectional	Median 9.5	45.00%	Not reported	568
Cobham & Mcdermott	2014	Australia	Cross-sectional	9.71 SD 1.16	45.10%	Not reported	776
Tillery, Long, & Phipps	2014	USA	Cross-sectional	13.6 SD 2.33	51.20%	Not reported	205
Morris	2010	USA	Cross-sectional	11.7(SD 2.55)	60.00%	93.94%	35

Data extraction for the systematic review and meta-analysis continued

Study author	Assessment time points (longitudinal studies)	Retention rate	T1 time post-trauma
Bokszczanin	N/A	N/A	28 months
Kelley et al.	T1: 3-7 months, T2: 14-17 months post-hurricane	85.00% participants	3-7 months
Keppel-Benson et al.	N/A	N/A	2-18 months M 9.5 months SD 4.5
Le Brocque et al.	T1: 6 days post admission, T2: 4-6 weeks post injury, T3: 6 months post injury, subsample did questionnaires after 2 year	Not reported	6 days
Marsac et al.	T1: 2 weeks post injury, T2 3 month follow up. Parent report only at T1	87.00% participants	2 weeks
Meiser-Stedman et al.	T1: 2-4 weeks post trauma, T2: 6 months post trauma	69.7% children, 54.5% parents	2-4 weeks
Punamaki et al.	T1: 1993 in final months of Intifada, T2: Autumn of 1996	79.63% participants 85% of sample interviewed at all 3 rounds	3 years
Rosario et al.	1 yearly assessment for 3 years (T1, T2, T3)	N/A	Not reported
Thabet et al.	N/A	N/A	Not reported
Valentino et al.	N/A	N/A	Within 30 days
Vernberg et al.	2 sessions of 35-50 minutes on separate days	Not reported	3 months
Cobham & Mcdermott	N/A	N/A	3 months
Tillery, Long, & Phipps	N/A	N/A	Mean not reported, Median = 2.2 years, 1 month-5 years post cancer diagnosis
Morris	N/A	N/A	Questionnaires completed at hospital or at home immediately following trauma

Data extraction for the systematic review and meta-analysis continued

Study author	Child trauma exposure	Exposure type	Group trauma	Was the Trauma intentional
Bokszczanin	Flood Disaster (28 months after)	Natural disaster	Group	No
Kelley et al.	Hurricane Katrina	Natural disaster	Group	No
Keppel-Benson et al.	Motor Vehicle Accidents	Road Traffic	Solo	No
Le Brocque et al.	39% falls, 19% bike injuries, 12% sporting injuries, 11% MVA. Mean length of stay in hospital 4.25 days	Illness/Injury	Solo	No
Marsac et al.	Fractures 63.3%, sprains/strains 4.9%, contusion/lacerations 4.9%, head injuries 9.8%, organ injuries 7.3%, multiple traumas 3.7%, other 6.1%	Illness/Injury	Solo	No
Meiser-Stedman et al.	38 Assaults, 28 Motor Vehicle Accidents	Mixed	Solo	Mixed
Punamaki et al.	Intifada violence exposure	War	Group	Yes
Rosario et al.	Victimised in the community or witnessed community violence	Interpersonal	Solo	Yes
Thabet et al.	Gaza Strip Refugee Camp A	War	Group	Yes
	20.1% sexual abuse, 20.9% assault, 22.0% motor vehicle accident, 16.5% witnessing violence, 3.3% threatening, 5.5% injury, 4.4%			
Valentino et al.	animal bite	Mixed	Solo	Mixed
Vernberg et al.	Hurricane Andrew	Natural disaster	Group	No
Cobham & Mcdermott	Mini-cyclone	Natural disaster	Group	No
Tillery, Long, & Phipps	Cancer diagnosis	Illness/Injury	Solo	No
Morris	15 traffic related events, 11 falls, 4 sports related, 5 miscellaneous	Illness/Injury	Solo	No

Data extraction for the systematic review and meta-analysis continued

Study author	Parent also experienced trauma	Child PTSD instrument used	Child PTSD meas.by	Child PTSD informant
Bokszczanin	Not reported	Revised Version Mississippi PTSD Scale (Norris & Perilla, 1996), Polish version	Ques.	Child
Kelley et al.	Yes	UCLA Posttraumatic Stress Disorder Reaction Index for DSM-4 (Pynoos et al., 1998)	Ques.	Child
Keppel-Benson et al.	Not reported	Diagnostic interview for Children & Adolescents (Reich & Welner, 1988)	Int.	Both
Le Brocque et al.	Some parents involved in accident in some way	Child Impact of Events Scale (CIES; Dyregrov, Kuterovac & Barath, 1996)	Ques.	Child
Marsac et al.	Not reported	Child PTSD Symptom Scale (CPSS; Foa et al., 2001)	Ques.	Child
Meiser-Stedman et al.	Parent present in 6 cases	Revised Impact of Event Scale (Dyregrov & Yule, 1995)	Ques.	Child
Punamaki et al.	Not reported	CPTSD-RI (Frederick, Pynoos & Nader, 1992)	Ques.	Child
Rosario et al.	Not reported	PTSD section of the Diagnostic Interview for Children and Adolescents-Revised (DICA-R; Reich et al., 1994)	Int.	Child
Thabet et al.	Not reported	Structured Clinical Interview for DSM-4, PTSD section (SCID-NP; First, 1995), Arabic version.	Int.	Child
Valentino et al.	Not reported	The UCLA Posttraumatic Stress Disorder Index (Pynoos et al., 1998)	Ques.	Both
Vernberg et al.	Not reported	Modified - The Posttraumatic Stress Disorder Reaction Index for Children (Frederick et al., 1992),	Ques.	Child
Cobham & Mcdermott	Not reported	The Child Trauma Screening Questionnaire (CTSQ; Kenardy et al., 2006)	Ques.	Child
Tillery, Long, & Phipps	No	The UCLA Posttraumatic Stress Disorder Index (Pynoos et al., 1998)	Ques.	Child
Morris	Not reported	Impact of Event Scale- Revised (IES-R; Weiss & Marmar, 1997)	Ques.	Child

Data extraction for the systematic review and meta-analysis continue

Study author	Parenting behaviour measured	Neg. or pos. parenting beh. meas.	Parenting informant	Parenting instrument(s) used
Bokszczanin	Support, overprotection	Both	Child	Parental Support (Czapinski, 1998), Conflict: subscale from Family Environment Scale (Moos, 1992), Overprotectiveness: Parental Bonding Instrument (Parker et al., 1979)
Kelley et al.	Hostility	Negative	Parent	Alabama Parenting Questionnaire, corporal punishment subscale (Shelton et al., 1996)
Keppel-Benson et al.	Overprotection	Negative	Child	Interview questions similar to McFarlane (1987)
Le Brocque et al.	Support, overprotection	Both	Parent	Parent Support-Control Questionnaire (PSCQ; Lilley, 2003)
Marsac et al.	Support	Positive	Both	Children's Coping Assistance Checklist (CCAC; Prinstein et al., 1996)
Meiser-Stedman et al.	Overprotection	Negative	Parent	The Family Functioning Questionnaire (McFarlane, 1987)
Punamaki et al.	Support, hostility	Both	Child	Parental Behaviour Inventory Scale (Schaefer, 1965)
Rosario et al.	Support, hostility	Both	Both	The Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987) & Conflict Tactics Scale (CTS; Straus, 1979)
Thabet et al.	Support	Positive	Child	Perceived Parenting Support Scale (PPSS; Mohammed, 1996)
Valentino et al.	Support, hostility	Both	Both	The Parent Behaviour Inventory Parent and Child Versions (Lovejoy et al., 1999)
Vernberg et al.	Support	Positive	Child	The Social Support Scale for Children and Adolescents (SSSCA; Harter, 1985)
Cobham & Mcdermott	Overprotection	Negative	Parent	Questionnaire unnamed.
Tillery, Long, & Phipps	Support, overprotection	Both	Child	Parental Bonding Instrument (Parker et al., 1979)
Morris	Overprotection, support	Both	Both	The Parent Acceptance-Rejection Questionnaire (PARQ; Rohner, 1984), The Parent Protection Scale (PPS, Thomasgard et al 1995)

Data extraction for the systematic review and meta-analysis continued

Study author	How parenting behaviour measured	Child comorbid psychopathology assessed	Child comorbid psychopathology instrument(s) used
Bokszczanin	Questionnaire	No	N/A
Kelley et al.	Questionnaire	No	N/A
Keppel-Benson et al.	Interview	Child behavioural problems Child pre-trauma externalising/ internalising behaviour problems	DICA-R-C and DICA-R-P (Reich & Welner, 1988)
Le Brocque et al.	Questionnaire	No	Child Behaviour Checklist (CBCL; Achenbach & Rescorla, 2001)
Marsac et al.	Questionnaire	No	N/A
Meiser-Stedman et al.	Questionnaire	Anxiety	Anxiety Disorders Interview Schedule for DSM-IV (Silverman & Albano, 1996)
Punamaki et al.	Questionnaire	Child emotional disorders & neuroticism	EM Ontario Child Health Scale (Boyle & Pickles 1997), Arabic version. Eysenck's Neuroticism Scale (JEPQ; Eysenck & Eysenck, 1975), Arabic version.
Rosario et al.	Questionnaire	Anxiety & depression	Beck Depression Inventory (Beck et al., 1988) & Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1978)
Thabet et al.	Questionnaire	No	N/A
Valentino et al.	Questionnaire	Child behavioural problems	Child Behaviour Checklist (Achenbach & Rescola, 2001), The Behaviour Assessment System for Children (Reynolds & Kamphaus, 2002)
Vernberg et al.	Questionnaire	No	N/A
Cobham & Mcdermott	Questionnaire	No	N/A
Tillery, Long, & Phipps	Questionnaire	Anxiety & depression	Children's Depression Inventory (Kovacs, 1992), Screen for Child Anxiety & Related Emotional Disorders (SCARED; Birmaher et al., 1997)
Morris	Questionnaire	No	N/A

Data extraction for the systematic review and meta-analysis continued

Study author	Child comorbid psychopathology informant	Parent PTSD assessed	Parent PTSD instrument used	Parent comorbid psychopathology assessed
Bokszczanin	N/A	No	N/A	No
Kelley et al.	N/A	No	N/A	Parent psychological symptoms at T1
Keppel-Benson et al.	Both	No	N/A	No
Le Brocque et al.	Parent	Yes	Impact of Event Scale (IES; Horowitz, Wilner & Alvarez, 1979)	Parent non-psychotic mental health at time of the child's injury
Marsac et al.	N/A	No	N/A	No
Meiser-Stedman et al.	Child	No	N/A	Depression, Rumination, Anxiety & Worry
Punamaki et al.	Both	No	N/A	No
Rosario et al.	Child	No	N/A	Parent psychological distress
Thabet et al.	N/A	No	N/A	No
Valentino et al.	Both	Yes	The PTSD Checklist Civilian Version (Weathers et al., 1994)	No
Vernberg et al.	N/A	No	N/A	No
Cobham & Mcdermott	N/A	No	N/A	No
Tillery, Long, & Phipps	Child	No	N/A	No
Morris	N/A	Yes	Impact of Events Scale Revised (Weiss & Marmar, 1997)	No

Data extraction for the systematic review and meta-analysis continued

Study author	Parent comorbid psychopathology instrument used	Mean ES for review
Bokszczanin	N/A	0.34
Kelley et al.	Global Severity Index, GSI (Derogatis, 2000)	0.16
Keppel-Benson et al.	N/A	0.24
Le Brocque et al.	General Health Questionnaire (GHQ-28; Goldberg, 1978)	0
Marsac et al.	N/A	0.01
Meiser-Stedman et al.	Beck Depression Inventory (Beck et al., 1988), Response Styles Questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991), Anxiety Sensitivity Inventory (Reiss et al., 1986), Meta-Cognitions Questionnaire (MCQ; Cartwright-Hatton & Wells, 1997).	0.31
Punamaki et al.	N/A	0.02
Rosario et al.	Brief Symptom Inventory (Derogatis 1993)	0.1
Thabet et al.	N/A	0.34
Valentino et al.	N/A	0.15
Vernberg et al.	N/A	0.26
Cobham & Mcdermott	N/A	0.19
Tillery, Long, & Phipps	N/A	0.23
Morris	N/A	0.39

Note: SD = standard deviation. No. = number. T1 = time point one. T2 = time point two. T3 = time point 3. Meas. = measurement. Ques. = questionnaire. Int. = interview. Beh. = behaviour. Neg. = negative. Pos. = positive. N/A = not applicable. ES = effect size. Mean ES for review = mean effect size included in the meta-analysis.

Appendix 3: Paper 2 Parental responses to child experiences of trauma following presentation at emergency departments: a qualitative study

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Research

BMJ Open Parental responses to child experiences of trauma following presentation at emergency departments: a qualitative study

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ABSTRACT

Objective: Parents are often children's main source of support following fear-inducing traumatic events, yet little is known about how parents provide that support. The aim of this study was to examine parents' experiences of supporting their child following child trauma exposure and presentation at an emergency department (ED).

Design: Semistructured qualitative interviews analysed using thematic analysis.

Setting: The setting for this study was two National Health Service EDs in England.

Participants: 20 parents whose child experienced a traumatic event and attended an ED between August 2014 and October 2015.

Results: Parents were sensitive to their child's distress and offered reassurance and support for their child to resume normal activities. However, parental beliefs often inhibited children's reinstatement of pretrauma routines. Support often focused on preventing future illness or injury, reflective of parents' concerns for their child's physical well-being. In a minority of parents, appraisals of problematic care from EDs contributed to parents' anxiety and perceptions of their child as vulnerable post-trauma. Forgetting the trauma and avoidance of discussion were encouraged as coping strategies to prevent further distress. Parents highlighted their need for further guidance and support regarding their child's physical and emotional recovery.

Conclusions: This study provides insight into the experiences of and challenges faced by parents in supporting their child following trauma exposure. Perceptions of their child's physical vulnerability and treatment influenced parents' responses and the supportive strategies employed. These findings may enable clinicians to generate meaningful advice for parents following child attendance at EDs post-trauma.

INTRODUCTION

Traumatic events, such as serious road traffic accidents or accidental injury, are relatively common in childhood^{1 2} and are associated with a range of psychological adjustment difficulties, including post-traumatic stress

Strengths and limitations of this study

- The children included in this study were exposed to a broad range of traumatic events which allows for the inclusion of a wide range of parental views and experiences.
- Reliability of the qualitative analysis was confirmed by the independent assessment of all transcripts, codes and themes by an additional qualitative researcher for agreement. Participants were provided with a summary of the interview findings to ensure the validity and the robustness of the findings.
- Child trauma exposure was limited to single-incident, physical trauma and may not reflect the experiences of parents of children exposed to chronic trauma or trauma not associated with significant physical consequences.
- The majority of participating parents were mothers and father/other caregiver views were less well represented.
- Parent-child dyads were recruited from a relatively low-risk, Western context based in England which may not be generalisable to other contexts without further investigation.

disorder (PTSD)^{3 4} which can result in long-term adverse outcomes.^{5 6} Parents are often children's leading source of support post-trauma, and parental behaviours may mediate children's resilience.⁷ Previous research has shown that parental warm support following child trauma exposure is associated with fewer child PTSD symptoms.⁸⁻¹⁰ Conversely, parental overprotection and advocacy of avoidant coping may increase the risk of child PTSD symptoms.¹¹⁻¹³ Such post-trauma parental responses are likely to be influenced by parents own psychopathology and distress.^{7 14 15} Notably, child trauma exposure can cause parental post-traumatic distress, even when parents were not directly exposed to the event,¹⁶ and parental post-trauma distress may result in the promotion of

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maladaptive coping strategies or parental difficulties in discussing the trauma, which can negatively impact child adjustment.^{17 18}

Given the interplay between child trauma/PTSD, parental distress and parental support, it is striking that few studies have considered how parents experience supporting children post-trauma, what challenges they face or the factors that influence their approach.^{15 19} One notable qualitative study, conducted in the Netherlands, provided evidence that parents can be proactive in responding to child post-traumatic distress, taking steps to ensure that they are aware of their child's needs and support their child accordingly.¹⁹ Nonetheless, parental experiences following child trauma exposure remain underexplored. A deeper understanding of parents' experiences of caring for a child post-trauma may inform clinical practice and contribute to the development of meaningful and acceptable guidance for families in which a child has experienced trauma.

We conducted in-depth, qualitative interviews with 20 parents following their child's attendance at hospital emergency departments (EDs) in England. We aimed to explore parents' perceptions of (need for) support, the experiences of parents in supporting their child post-trauma and the impact of child trauma on family processes.

METHOD

The study received approval from the National Health Service Research Ethics Committee (14/SC/0043) and Bath University Ethics Committee (15-218). Participants gave informed consent (parents) or assent (children).

Participants

Twenty parents and their children were recruited following the child's attendance at one of two EDs in the south of England. Recruitment took place between August 2014 and October 2015. Participants were eligible for the study if the child was aged 6–16 years and had experienced a traumatic event as defined by DSM-V criterion A for PTSD.²⁰ The following exclusion criteria were applied: parent or child inability to speak English; child organic brain damage or intellectual disability that precludes mainstream schooling; child registered with child protection services and concerns that the respondent parent inflicted the trauma.

Of the 53 eligible patients approached by the clinical care team, 33 declined (ie, 37% recruitment rate, consistent with other ED studies²¹). Reasons for decline as reported to the clinical care team included fatigue and 'wanting to put the event behind them'.

Assessments

Parental PTSD symptoms

Parents completed the 49-item Post-traumatic Stress Diagnostic Scale (PDS)²² as a measure of their own PTSD symptoms. Symptom items are rated on a 4-point

Likert scale (total score range 0–51) and the scale has good test–retest reliability and internal consistency.²³

Child PTSD symptoms

Child PTSD was measured by the University of California at Los Angeles (UCLA) Post-traumatic Stress Disorder Reaction Index,²⁴ a widely used measure of child post-traumatic stress symptoms (PTSS) with good internal consistency and test–retest reliability.²⁵ The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-RI) is based on the DSM-IV PTSD criteria, has parent and child report versions and indexes trauma exposure as well as symptoms. Symptom frequencies are rated on five-point Likert scales ranging from 0 ('never') to 4 ('most of the time'), with symptoms scored as present if rated 3 ('much of the time') or greater. If criterion A is met, children who meet criteria B, C and D are given a likely 'full' diagnosis of PTSD, and children who meet criteria for only two symptom subcategories are given a 'partial' PTSD diagnosis.²⁵ All parents completed the parent report version of the UCLA-RI in relation to their child's recent experience. In addition, children completed symptom scales (part 2) of the UCLA-RI child report version,²⁴ providing their own reports of PTSS relating to the event that led to their ED admission. Full information, based on parent and child reports, is presented in [table 2](#).

Qualitative interview schedule and procedure

Interviews were conducted by a female doctoral student (VW) who had training and experience in qualitative methods. Interviews were conducted by telephone and lasted 57 min on average (range=23.5–92.6 min). The researcher did not have a relationship with participants prior to study initiation. We developed the interview topic guide based on the research questions and the literature on parent–child trauma recovery responses. Interview questions focused on parents' post-trauma responses, concerns about their child and experiences of providing support (see online supplementary file 1). Parents were also asked for their views on the support available post-trauma. Interviews were audio-recorded and transcribed verbatim. Twenty parents completed the qualitative interview, and thematic saturation was achieved.

As respondent validation, we provided parents with a written summary of the key findings and preliminary interpretations following the interview. This opportunity to obtain participant feedback further increased the potential reliability and accuracy of the data.²⁶ In fact, only three parents responded to correct factual details which did not alter the thematic analysis. We treated input from participants regarding the interview summary as additional data.

Procedure

Purposive sampling was used. Participants were initially identified by the clinical care team following ED attendance. The clinical team sought parental permission for

their details to be passed to the research team. Given this agreement, parents were contacted by the study researcher by telephone with further information about the study. Following informed consent/assent, participating parents and children first completed assessments of their psychological adjustment and then parents participated in the qualitative interviews. Parents and children were approached by the clinical care team on average 2 weeks following ED attendance, and families were recruited to the study ~4 weeks post-trauma (range=10–98 days).

Data analysis

We used NVivo V.10 (http://www.qsrinternational.com/products_nvivo.aspx) to conduct thematic analysis on participant transcripts.²⁷ We used the steps proposed by Braun and Clarke:²⁷ reading and re-reading the data, generating initial codes, searching for and developing candidate themes and revising and classifying themes. An inductive analytic approach was used, with initial codes and themes proposed by VW. A reflexive journal was kept throughout data collection and analysis by the primary researcher (VW) in an effort to recognise the influence of the researcher's prior experiences, thoughts and assumptions and prevent premature or biased interpretations of the data. To ensure reliability, all transcripts, codes and themes were independently reviewed by authors VW and HC. Disagreements between authors were infrequent and were resolved following discussion and re-examination of the data. Peer debriefing was conducted, and feedback regarding data interpretation and analysis was sought from coauthors IB and SLH.

RESULTS

Descriptive information

Of our final sample, 75% of participating parents were mothers, 40% of the participating children were female with a mean age of 10.4 years (SD=3.2) (see table 1). The average UCLA-RI parent-report score was 9.6 (SD=10.3, Mdn=6), and the average UCLA-RI child-report score was 10.73 (SD=7.4, Mdn=10). Three children were classified as having a likely PTSD diagnosis using the UCLA-RI, and three children met criteria for a partial diagnosis. The mean PDS score was 7.9 (SD=8.9, Mdn=7) which is considered mild.²⁸ Trauma characteristics are described in table 2.

Qualitative results

Five key themes emerged from the data reflecting parents' experiences and attempts to support their child post-trauma. Anonymised participant comments are provided to illustrate our findings, and all participants have been assigned a pseudonym.

Post-trauma perception of the child and event

Parents described several changes in their child's behaviour following the trauma and understood many of

Table 1 Participant information

Index	Sample statistics (n=20)
Child mean age, M (SD)	10.4 (3.2)
Child female gender, n (%)	8 (40%)
Parent mean age, M (SD)	41.6 (6.1)
Parent marital status, n (%)	
Single	1 (5%)
Married (first time)/cohabiting	17 (85%)
Remarried	2 (10%)
Mean time since trauma, M(SD)	41 days (26.2) (Mdn=32.5)
Trauma types	
RTA	8 (40%)
Assault	1 (5%)
Fall from elevation	5 (25%)
Acute medical emergency	4 (20%)
Sporting injury	1 (5%)
Other	1 (5%)
Percentage of children admitted as inpatient, n (%)	14 (70%)
Mean number of injuries sustained, M (SD)	1.95 (1.7)
Mean income, n (%)	
Don't wish to respond	4 (20%)
<£10 000	1 (5%)
£10 000–29 000	3 (15%)
£30 000–49 000	2 (10%)
£50 000–69 000	5 (25%)
£70 000–200 000	5 (25%)
Ethnicity, n (%)	
White British	15 (75%)
Black British	1 (5%)
Asian British	2 (10%)
Other	2 (10%)

UCLA-RI, parent and child report, PTSD overall severity score reported. Number of children meeting criteria for PTSD diagnosis refers to the number of children meeting criteria for a PTSD diagnosis based on their responses on the UCLA-RI. Mean time since trauma=mean number of days post-trauma at the time of the interview.

M, mean; Mdn, median; PTSD, post-traumatic stress disorder; RTA, road traffic accident; UCLA-RI, UCLA Post-traumatic Stress Disorder Reaction Index.

these changes to be a result of their child's distress following the experience of trauma.

PID K: He did quite like going out on his own... But he's a bit scared now...doesn't wanna cross any roads on his own...the day that we actually left hospital he was really scared of crossing the roads straightaway...he's holding my hand like it was vice like grip.

Some parents were unconcerned by these changes in their child as their post-trauma anxiety was considered to be a result of and limited to the trauma (eg, fear of water after near-drowning). Other parents described their child as essentially unchanged, with any behavioural changes attributed to their physical injuries post-trauma.

Table 2 Participant trauma characteristics

ID no.	Child age	Child gender	Parent interviewed	Parent age	Parent involved in the event	Trauma experienced	Days since trauma	UCLA-RI Severity Score (parent report)	UCLA-RI Severity Score (child report)	PDS Symptom Severity Score
A	6	Female	Mother	25	Yes	Acute medical emergency	18	20*,†	0	15
B	8	Female	Father	42	No	RTA	32	1	18	7
C	15	Male	Father	42	No	Near-drowning	69	5	6	1
D	14	Female	Mother	45	No	Fall from elevation	38	6	23‡	22
F	6	Male	Mother	40	Yes	Acute medical emergency	92	6	NA	8
G	11	Female	Mother	45	No	RTA	33	4	18	19
H	7	Female	Father	49	No	Fall from elevation	25	4	6	0
I	16	Male	Mother	45	No	Assault	48	42*	10	22
J	9	Male	Mother	40	No	RTA	55	7	20‡	9
K	11	Male	Mother	44	No	RTA	23	17	20	NA
L	13	Male	Mother	29	No	RTA	10	17	20*,†	7
M	8	Female	Mother	42	No	Fall from elevation	80	6	10	0
N	14	Male	Mother	42	No	RTA	25	4	6	0
O	12	Female	Mother	42	Yes	Acute medical emergency	17	8	13	1
P	9	Male	Father	44	No	RTA	28	27†,‡	13	27
Q	11	Male	Father	50	Yes	Sports injury	23	7	2	0
R	6	Male	Mother	41	Yes	RTA	98	5	14	4
S	10	Male	Mother	37	No	Fall from elevation	53	2	4	0
T	9	Female	Mother	49	Yes	Fall from elevation	11	0	0	0
U	13	Male	Mother	39	No	Acute medical emergency	42	3	3	9

UCLA-RI, parent and child report. PTSD overall severity score reported. PDS, parent symptom severity score reported. Parent involved in the event refers to whether or not the parent was directly involved in or witnessed the child's traumatic event.

*Meets criteria for likely PTSD diagnosis using UCLA-RI.

†Time since trauma less than 4 weeks therefore duration criterion cannot be applied in this case. NA, data unavailable as parent did not complete or refused for child to take part.

‡Meets criteria for partial PTSD diagnosis using UCLA-RI.

PDS, Post-traumatic Stress Diagnostic Scale; PTSD, post-traumatic stress disorder; RTA, road traffic accident; UCLA-RI, UCLA Post-traumatic Stress Disorder Reaction Index.

Interviewer: Were there any changes that you noticed in Ian after his accident?

PID S: He has quietened down a little bit...he's been in a lot more [playing] computer games but...its more because he physically can't join in, not because...it mentally affected his personality or that he's worried.

Parents often compared their child's post-trauma behaviour to their pretrauma behaviour to determine whether their child was coping. Parents understood their children to be coping well when they exhibited no behavioural changes or when pretrauma activities were resumed. Children were also considered to be coping if they did not talk or ask questions about the trauma. Parents thought their child not ruminating about or dwelling on the event contributed to their capacity to cope.

PID S: He's not worried about anything...it's not like he's coming with questions "what if?" or "why did this happen to me?"...he doesn't have any of those kind of feelings or fears, he knows it's a few weeks and hopefully it will heal.

Strategies to support the child

Parents' experiences of the trauma and their child's subsequent medical care influenced the support they provided. The most prominent themes in parents' narratives reflected a desire to care for their child post-trauma and for family life to continue as normal, while protecting children from potential future harm.

Warm support: Parents reported making themselves available for their child and encouraging them to talk to them about their post-trauma distress. Discussion of the event and associated distress were thought to be instrumental to the child's recovery, and some parents engaged in lengthy discussions to facilitate their child's disclosure of their feelings.

PID K: I'm very much "tell mummy how you feel?" sort of thing... It's important to for them to tell you how they're feeling emotionally...so I think in that way, because of the way we are, I think that's helped a lot really.

Children experienced significant anxiety post-trauma and parents responded with reassurance that the event would not reoccur and normalisation of their post-trauma distress. Parents attempted to address their child's anxiety by initiating confidence building exercises and being nearby to offer reassurance in fear-provoking situations. Parents advocated a positive interpretation of the trauma by positively reframing the event and encouraging children to feel lucky as the event could have been worse.

PID K: We're gonna do a little bit of road safety... I said to him... "I'm gonna be you...and you're gonna be the parent and we're gonna cross the road together" and he said "what happens if I get you run over?" and I said "you won't get me run over dear."

Despite these supportive strategies, parents also described considerable helplessness in caring for their child, particularly during lengthy hospital stays as their child required medical attention that they personally could not provide. To manage feelings of helplessness, parents tried to be actively involved in their children's medical treatment and after-care, for example by purchasing medical equipment to monitor their child's health at home.

PID F: [A friend] told me about this pixel meter...[so] I went to see a nurse...and she gave it to us... I feel like I have at least something to measure if he needs more oxygen or not, so I feel like at least I have something because when he got home from hospital I was thinking well how would I know?

Returning to normal: Parents attempted to continue their family's pretrauma routines to encourage their child's emotional and physical recovery through physical activity. Accommodating children's post-trauma difficulties and distress was often time limited, and parents gradually encouraged children to resume their normal activities. Notably, parents simultaneously struggled to reinstate pretrauma routines because of their own anxiety that their child may experience future harm, as seen in the following section.

PID I: [We're] just trying to be normal and try and not to baby him too much, to sort of try and encourage him to do things a bit more on his own but not wanting to push it too much, you know, it's still sort of quite soon after.

Encouragement of trauma-related discussions was not universal, and some parents instead advocated cognitive and behavioural avoidant coping strategies. Parents removed their child from contact with trauma reminders, which were thought to hinder recovery, and encouraged children to forget the event.

PID R: It was very difficult for me because I didn't want to upset him in one way, he'd already been hurt... I did say "why did you let go of mummy's hand?" and after that I didn't ask [that was] the only one time I asked... I said to him "now be a child and try to forget about it... what has happened, happened, let's move on from it."

Parents reported avoiding discussion of the trauma to prevent their child becoming distressed. Discussion of the trauma was thought to be unnecessary and potentially harmful as it would prevent their child moving on from the event or strengthen their trauma memories.

PID B: I don't think she talk about [it], she did not talk a lot about the accident and I don't want to ask her either, I'm afraid that will brought back some terrible memory, so I did not ask her.

In these circumstances, if the trauma was discussed it was performed in a factual, perfunctory manner, with

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conversation focused on the child's physical recovery. As a result, some parents were unaware whether their child was experiencing post-trauma distress.

PID F: He ask me like "Mummy is it better to live or die?"...but I think with me I was a bit upset so I didn't really talk about like "how do you feel Daniel?" Well I did ask him like "are you OK?" but I didn't really emotionally ask it...and I didn't really want to remind him too much of it afterwards...we wanted to just carry on as normal and not to get him upset or worried too much.

One assumption held by parents was that their child would feel able to initiate a discussion of the event and their associated distress if needed, despite parental avoidance of trauma-related discussions. If children did not broach the subject, they were considered to be coping well.

PID Q: I would say he's just moved on... he's not going on about it...it's not as if were sitting down to [ask] "are you OK after your accident?" and all that stuff...and he is the sort of boy who if it was on his mind would talk to us.

Guarding: Children were considered vulnerable post-trauma and parents expressed significant concerns that their child could re-experience serious illness or injury. Parents were vigilant of their child's physical symptoms, such as headaches and breathlessness, and encouraged others to be observant of symptoms.

It was particularly difficult for parents to be apart from their child post-trauma, which contributed to their struggle to resume their family's pretrauma routines. Parents implemented significant changes to their child's daily routine to prevent future illness or injury. Children were described as persuading their parents to allow them to resume activities parents now considered risky, and parents coped with their anxiety by checking on children frequently.

PID D: I'm still worried, you know, I think I drove her mad really, sort of following her round and saying "you can't do this, you can't do that, you know be careful with what you're doing, do you need pain killers?"...I'm finding it difficult to let her do things that she did before without worrying...[and] it was just difficult to have her away from me really.

Perceptions and impact of medical treatment

Parents largely reported that their child had received good quality medical treatment from EDs and were treated quickly and professionally. Where present, perceived problems in medical care, including misdiagnosis and limited or insensitive communication about medical procedures, contributed to parents' anxiety and perceptions of children as vulnerable and needing future protection.

PID D: We were told, which was actually incorrect, that she didn't have any bleeds on the brain... I think that

happening has made me more nervous because I'm thinking "well if they've got something wrong once, you know, they could be wrong again or it could be worse than we're thinking".

On discharge, parents reported not receiving information about their child's physical recovery and it was difficult to access follow-up appointments to confirm their progress. This also contributed to parental anxiety and feelings of helplessness as parents felt uncertain of what to expect during their child's recovery and/or of whether symptoms were normal. Ideally, parents would have preferred to receive information about their child's physical recovery in-person by a doctor on discharge; information from leaflets or the internet was not considered useful.

PID L: We haven't been explained to personally what to look out for...we're having to totally guess. So that's what scared us, we don't know what we're looking out for... I think that's the only thing they could have done different, they could have physically spoke to us and explained what to look out for.

Perceptions of psychological treatment and support

Parents reported that they and their children received little emotional support from medical staff in EDs, despite their visible distress. Parents described a lack of information regarding how to provide emotional support to their children post-trauma, and a need for information about what emotional changes could be expected in their child, advice to support coping, and information on how to access formal psychological treatment if needed. For the most part, parents did not investigate children's emotional responses following trauma or coping strategies online as information from the internet was considered unreliable.

PID M: I guess maybe just having the kind of written information, because you do eventually get round to sitting and reading it... I [would've] been more alert to...whether she was more emotionally up and down or whether she was a bit more clingy than usual.

At the time of the interview, no child had received formal psychological treatment following the trauma. In some cases, parents were uncertain how to access psychological treatment should their child need it. Parents felt that psychological treatment sought via the general practitioner (GP) would be difficult to access and preferred to approach friends or relatives for advice if their child experienced significant post-trauma difficulties.

Int: If she was sort of emotionally finding it a bit difficult...do you know where you'd go to get help [to] support her?

PID O: No, no I don't. I think I'd start with the GP, but that's a bit sort of protracted system. Yeah, I don't know

where I'd go to get someone who's an expert in that field and get some sort of immediate help.

Parents reported interest in formal psychological support post-trauma, either in the form of a support group for parents with children exposed to similar traumas or one-to-one counselling for parents. Apprehension about taking additional time off work, reluctance to receive advice from an unknown third party and concerns that counselling would be an additional stressor and potentially hinder the family's recovery influenced parents' receptiveness to psychological support.

PID L: Like a support network of people in similar incidents where you can just sit down and have a coffee and a chat and just talk about it and...explain your side of it, like a support group maybe...that then helps the others in understanding the way they may be feeling...they then start realising that maybe they're not on their own but there's support out there and there are other people living what you're living.

Impact of the trauma on the parent

Parents experienced significant distress following the trauma. Where parents perceived ED treatment to be problematic, this appeared to be a considerable factor in parental helplessness with parents feeling unable to competently care for their child as a result. Parents reported blaming themselves or feeling blamed by others for not protecting their child or delaying their child's medical treatment. To cope with feelings of blame, parents normalised their mistake.

PID O: You know the line of questioning from most people, you can see the undertone of it could be "this is the first time it's happened? How come you didn't know?"... So yeah I think well maybe I should have known, but then I do think well God I'm not bloody perfect and I can't do everything.

Following the traumatic event, parents described significant stress having to care for their child's additional needs while managing normal daily activities. Parental stress increased when workplaces were inflexible about their need to take time off. Parents were concerned about the impact of their child's hospital stay and recovery on their family's finances and highlighted the lack of government assistance available.

PID J: There's no support network there when it comes to financial things for children having accidents for parents that both work...there isn't anything from a government side of things that can temporarily help you out...although you need to be with your children [in hospital], you've also got that bit in the back of your head saying well you need to work, you need to have money coming into the house because you don't get any help while they're in hospital.

Parents used several strategies to cope with the trauma and their distress, including normalising their

post-trauma feelings, relaxation and prayer. Parents identified the support they offered to their children, such as spending more time together, as being helpful to their own coping. Avoidance-based coping strategies were also used, including reported suppressing thoughts about the event by focusing on other activities, and avoiding discussing the event with others.

PID B: We don't want to talk to friends anyway [as] this seems to bring up, bring back the poor memory...my wife and I don't want to talk a lot... I tell her to improve her driving skill, yeah, that's all...this [is a] bad thing, we don't want to talk about it.

Parents felt that social support was readily available and valued practical and emotional aspects. Support from parents' workplaces included easy access to psychological treatment if desired and understanding about the need to take time off.

PID L: My brother came out of work early and he was like "don't worry about the kids...we'll pick them up from school, we'll give them tea, you just be there [in hospital] with David...everything in the background of the household was just totally taken care of.

Concurrently, social support was occasionally experienced as an additional stressor, as frequent visitors and constant contact from concerned well-wishers was overwhelming.

PID R: [It was] draining...honestly, there were so many people coming in and out and in and out...even though it was lovely to see all these people... I was getting so drained talking [about the accident] over and over again and my son had to listen to it over and over again.

DISCUSSION

Many children experience traumatic events, and parents' responses can influence their child's psychological recovery,⁷ yet parental experiences of caring for their child post-trauma are understudied. We identified five themes related to parents' views of their child's coping and the supportive strategies parents used, perceptions of medical and psychological treatment and the impact of the trauma on parents. Parents identified several strategies they used to support their child post-trauma, including warm support, efforts to resume normal routines, advocacy of avoidance and attempts to protect children from future harm. However, such strategies appeared to be heavily influenced by parents' own feelings of helplessness and anxiety following the event. Parental responses were also influenced by their perceptions of care from EDs; poor care or limited information about child recovery contributed to parents' anxiety and difficulty resuming normal routines.

Parents attempted to support their child post-trauma in several warm, positive ways including offering reassurance and encouraging discussions about the event and

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their child's feelings. This is consistent with previous investigations which have found that parents attempt to support their children by helping them to process the event and express their feelings post-trauma.^{19 29 30} Parental warmth and emotional support may positively influence child adjustment as high levels of parental support post-trauma are associated with fewer child PTSS.¹¹ More specifically, parent-child discussions about the trauma may facilitate child adjustment by providing children with an opportunity to reappraise the event and have misconceptions corrected.^{31 32} However, it should be noted that greater parental sensitivity has been found to be associated with higher levels of child PTSS 2 years post-trauma³³ and the role of parental sensitivity and warmth on child adjustment post-trauma remains somewhat unclear (Williamson *et al*, 2016).

At the same time, several parents promoted avoidance-based coping strategies, including thought suppression and discussion avoidance. This strategy has not been reported in previous qualitative investigations of parental responses following child trauma exposure.^{19 34} The present study used telephone interviews which may increase perceptions of anonymity³⁵ and may have facilitated disclosure of particular responses. As such, parental advocacy of avoidance warrants consideration in future research. The use of avoidance strategies may be potentially maladaptive as child cognitive avoidance and parental advocacy of avoidance have been linked with child PTSD severity.^{12 36} However, it may also be entirely appropriate if children are themselves experiencing minimal distress. For some parents, avoidant coping was a consequence of their own distress, which was notably strong even where parents did not witness the trauma themselves.¹⁶ Parent and child PTSS have been found to be associated with each other³⁷ and parents use of avoidance in their own coping may negatively impact on child adjustment by modelling maladaptive strategies. Some parents held the assumption that their child would initiate discussions if needed, which may not be valid; existing research demonstrates that parental awareness of child PTSS is often low.³⁸

Parents reported reinstating their child's pretrauma routines as a supportive strategy. This is in line with previous qualitative research that has found that parents resume normal routines in an effort to support child recovery.^{15 19} Some existing research indicates resuming routines is important for child recovery,^{39 40} although this association has not always been observed.⁴¹ At the same time, many parents experienced significant difficulty allowing their children to resume pretrauma routines due to concerns that their child could re-experience serious illness or injury. In keeping with previous research, children were considered particularly vulnerable post-trauma³⁰ and parents attempted to preserve their child's well-being by closely monitoring them and implementing changes to their routines. Such parental behaviours could be described as overprotective and may reflect parents own hyperarousal in response to

the trauma.^{42 43} Overprotection is thought to play a key role in child anxiety aetiology⁴⁴ as this behaviour restricts child autonomy development and augments perceived vulnerability to threat^{7 45 46} and is significantly associated with child PTSS (Williamson *et al*, 2016). A perceived lack of information from EDs about their child's recovery contributed to parents' anxiety about their child's physical well-being, which is consistent with the limited available literature.⁴⁷ Effective communication with parents in EDs may benefit families post-trauma as the provision of information to parents of inpatient children is associated with reduced parental stress and better parent-child interactions.^{48 49}

In terms of psychological adjustment, no emotional support or advice to facilitate child coping was routinely available to study families. This is notable as 15% of children in the present study scored as likely to have a PTSD diagnosis on the UCLA-RI, consistent with rates found in similar samples.⁵⁰ As trauma exposure requiring hospital admission poses significant risk of child PTSD,¹⁶ these findings suggest a need for early psychological interventions and trauma-informed ED care, including the assessment of trauma-specific distress and family needs post-trauma.⁵¹ Future research should consider the role of medical staff in the sensitive delivery of information regarding children's physical and psychological recovery on discharge, including psycho-education about common reactions and coping strategies to improve family adjustment post-trauma.

This study has several limitations. We studied families of children exposed to a wide range of single-incident, physical traumas, but findings may not be generalisable to children exposed to chronic trauma or events not associated with physical injury. Moreover, the majority of parents interviewed were mothers, and fathers and other caregivers were not well represented. Furthermore, families were recruited from a comparatively low-risk, Western context and the present findings may not apply to other environments without further investigation. Despite these limitations, the results contribute to the literature in several ways. First, this study expands on the limited research into parental perspectives after child trauma exposure¹⁹ and provides insight into the experiences and challenges faced by parents, as well as the strategies used to support child recovery, post-trauma. Second, these findings illustrate how treatment of children in EDs may influence parents' perceptions of their child and impact the parental support provided. Finally, this research highlights the formal information and guidance desired by parents following child trauma which could ultimately improve child and family coping.

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Parental responses to child experiences of trauma following presentation at emergency departments: a qualitative study

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Appendix 4: Paper 2 Themes and Sub-themes

Table 3.3

Themes and Sub-Themes Identified by Thematic Analysis and Sample Quotations

Theme and sub-themes	Sample quote
Post-trauma Perception of the Child and Event.	
1. Changes in child behaviour due to post-trauma distress	He was scared of water and... when he did go to [camp] for the two weeks...he couldn't do any of the activities, including the water [activities], so it did affect him. (Isaac, father, 42 years)
2. Child post-trauma anxiety limited to the trauma	He's the same little boy that he was before really, but he is really scared of traffic. (Violet, mother, 40 years)
3. Child essentially unchanged with any behaviour changes due to physical injury	No I haven't see any changes at all, he's the same old Albert [but] ...he couldn't play football, he couldn't do anything that he wanted, swimming or all the activities he enjoyed doing... at the time of the injury... so he was disheartened but there were no other changes that I didn't think was normal. (Ivy, mother, 41 years)
4. Use of behavioural comparisons to determine child coping	When he was allowed out again he kinda made the most of that and he was out quite a lot, which probably wasn't typical of him, but now that's settled back down and he's out maybe a couple of times a week, which is normal...and he's back at the level now he was before. (Freya, mother, 39 years)

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| 5. Perception of the child as coping if trauma not discussed | We haven't discussed it, nobody's talked about it...not one child has ever felt that they needed to come and talk to me about the incident... [and maybe] they don't really need to speak to anyone else because I think they seem normal. (Ivy, mother, 41 years) |
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Warm Support

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| 1. Parental openness and emotional availability | I always say to her you know "if you've got anything on your mind you can come and talk to mummy and daddy about it...and if you don't want to talk to me, then you can talk to nanny" because she's got a really close relationship with her dad's mum...so there's always someone that she can talk to. (Elsie, mother, 25 years) |
| 2. Reassurance | If we push him out in the wheelchair he's very scared when it comes to crossing the road, so he doesn't like it...so he'll start panicking...I've told him and I've reassured him that he's with an adult and we wouldn't cross unless we thought it was absolutely safe to be crossing. (Annabelle, mother, 44 years) |
| 3. Addressing the child's trauma-related anxiety | She'd be like "oh I don't think I want to do that, I don't think I could do that yet" ...[if] I sort of got the impression that actually she felt that she would like to but was a little bit nervous and... I would say something like "oh that's fine, you don't have to. You don't have to do it. If you want to do it and if you want to try and have a go, I'll stand next to you." (Leah, mother, 42 years) |
| 4. Parental positive reframing of the trauma | He had to be taken to a specialist hospital by helicopter...and although being air lifted to hospital following a car accident is not cool at all, being in a helicopter certainly is. So he's the first one out of all of us that's done [it], so it's another sort of half positive out of a negative.... [So I'm] just trying to adapt my approach to his personality the best [I] can [and] making the most out of a bad situation. (Reuben, father, 44 years) |

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| 5. Parental efforts to be involved in child treatment and after-care | I keep telling him that he needs to keep nice and warm and when he's got cold or something I give him now vitamins, which he doesn't like, but I said "well, if you've got a runny nose then that's coming down with something, at least he's taking something." (Grace, mother, 40 years) |
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Returning to Normal

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| 1. Parental efforts to resume pre-trauma routines | I did have to sort of push her a little bit to sort of get her back and start doing things for herself... I did start sort of explaining to her that if I was just doing stuff for her, like pulling her pants and trousers up after she's been for a wee, all the time she wouldn't get be able to start doing it for herself. (Leah, mother, 42 years) |
| 2. Reinstatement of pre-trauma routines hindered by parental anxiety | <p>Mother: We've done a little bit of [road safety] and his confidence is building slowly but, it's gonna take some time...</p> <p>Interviewer: Have you done quite a lot of that [road safety]?</p> <p>Mother: Yeah, no, not that much really because [I'm] not wanting to push it too much really. (Violet, mother, 40 years)</p> |
| 3. Efforts to remove child from contact with trauma reminders | We did drive by the actual place where the accident took place. My wife did not want me to do it and she most certainly won't go anywhere near it. (Reuben, father, 44 years) |

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| 4. Discussion avoidance to prevent child distress | I know that when [his sister] told him he was [in hospital] for two nights [and] he just remembered one night and it make him a bit upset because he thought "oh I was there just really for one night." And I was telling [his sister] just leave him because, you know, I didn't want to get him too upset about it. (Grace, mother, 40 years) |
| 5. Limited trauma-related discussions with physical recovery focus | We'll talk about the whole situation and what he completely remembers he'll tell us what he remembers like riding in the road...he'll talk about things happening in the hospital like "I hated the neck brace" that he had to have on and all sorts of things like that... he hasn't really spoke about [his feelings] to be honest.... that's not something that we have actually spoke about its more like the situation, rather than how he feels about it. (Eliza, mother, 29 years) |
| 6. Parental expectation that children will initiate trauma-related discussions | He's quite an open child anyway...[and] there isn't anything that [he's] mentioned that he's struggling with. (Violet, mother, 40 years) |

Guarding

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| 1. Parental perceptions of the child as vulnerable | So, when he's out and about and I'll text him, say he's been gone an hour and I'll go "you Okay? Who you with? What you doing? Where are you?" So just very much along those lines. So just a bit more protective and vigilant...I was much more relaxed, I think, before. It's that knowledge isn't it? That anything can happen. One freak accident doesn't mean you can't have another one. (Freya, mother, 39 years) |
| 2. Parental vigilance of child physical symptoms | When he first came out of hospital [discussions were] very much about "how are you? What's your wound like? Let's have a look. Are you in any pain?" And then obsessing about his diet, making sure he didn't eat too much fat and all that. (Freya, mother, 39 years) |

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| 3. Parental difficulty in being apart from their child | I just found it very difficult to let her go [out], but we did. And then I was constantly in contact with her "are you OK? What time do you want picking up?" You know, it was just difficult to have her away from me really. (Megan, mother, 45 years) |
| 4. Parental efforts to change the child's routine | I think both of us kind of felt like we want to wrap her in cotton wool...before she got ill, if we was out playing, I wouldn't have minded if she was running up and down...but I'll just say to her "Sofia can you just calm down please, be careful a little"...I'm always saying to her "calm down, be careful, slow down a little bit" (Elsie, mother, 25 years) |
| 5. Child persuades parent to permit pre-trauma activities | It was her birthday and she had arranged to go to watch a movie and have something to eat with her friends. Now there were big discussions as to whether she could do it or not and she said to me "well, I'm sitting in school for half a day. If I'm just sitting in the cinema and I'm sitting in a restaurant, I'm not overexerting myself" (Megan, mother, 45 years) |
| 6. Increased parental checking on child | It makes you a bit more protective, a bit more vigilant. I text him probably more than I did before, check on him more than I did before.... when he's in the bath, I'm always knocking on the door like "Logan, are you alright in there? Is everything alright?" And I think "God, he's having a bath, he doesn't want you banging on the door." But yeah, it's that protective streak. (Freya, mother, 39 years) |

Perceptions and Impact of Medical Treatment

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| 1. Experiences of good quality medical care | Interviewer: Can you tell me a bit about the sort of care that you guys got in hospital?
Mother: It was it was fantastic from absolutely start to finish...they were brilliant, they were really, really good... |
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nothing was too much trouble, even though there were children that were a lot poorer than Oscar on the actual ward, they were absolutely fantastic. (Violet, mother, 40 years)

2. Problematic medical care contributes to parental anxiety

I think it would have been helpful to have some more of just sort of feedback and reassurance...particularly about the shoulder issue because I just [wondered] why is she in so much pain and it was sort of two or three days later... it would have been really helpful for somebody to say "oh, well you might get that pain there and the reason, you know"...so something said that me feel like I'd been heard when I'd expressed concerns about the shoulder because... from my side, it felt like that hadn't been heard... and I was like trying to make sense of it and you just then image the worst and think they've missed it, they didn't x-ray that part of her arm and something's sort of been missed. (Leah, mother, 42 years)

3. Lack of information from EDs regarding physical recovery

I think we were so relieved we could go that I actually kind of forgot to ask about what's next, so we were just told "oh, well you'll get sent an appointment" but there was no kind of information in terms of care and what have you and...so I'm frustrated at myself that I didn't kind of push for that information more to perhaps feel better equipped in the first few days. (Leah, mother, 42 years)

4. Follow up appointments challenging to access

I wish that the follow up and the reviews were quicker than they are...it took me chasing to get booked in for a telephone consultation... I felt a bit let down really since she's come home and I've had to chase and pester for appointments really. Whereas, you know, when it's something of that nature with your head, obviously I'm no expert, you don't know what you're looking for and there's symptoms still going on, is that is that normal or? You know, there's nobody really to talk to. (Megan, mother, 45 years)

5. Information regarding physical recovery from

Interviewer: Did they give you any information at the hospital?

Father: They gave me a head leaflet. A piece of a leaflet about head injuries. But, you know, it's on a grubby little bit of paper and it feels very much like if any of these things recur then do it as it says. It certainly didn't say

leaflets and internet
unhelpful

"stop! You've had a concussion this means, you know, if it's a rugby concussion this means twenty-eight days without any sport and this means you go through this theory" because most people don't know that. They just know if they are involved in the game. And had we not been, we wouldn't have known it. (Louis, father, 50 years)

Perceptions of Psychological Treatment and Support.

1. Limited emotional support received from EDs

What we always didn't get in particular was like somebody to come and talk about it...they had lots of people doing their job very, very well and I suppose you could say well "servicing" him, making sure he has meds when he has to do it, making sure he's in his bed comfortably, and so telling him that does he need a shower. I think what we didn't get was that sort of emotional support. (Reuben, father, 44 years)

2. Lack of information from EDs regarding providing emotional support to children post-trauma

I'm trying to think if there was much information about supporting the emotional side [from hospital]. I don't remember there being much... I may be wrong and it maybe that I've just completely forgotten, but [I don't] have in my mind any kind of information about the kind of emotional side of getting anything from the hospital about that at all. Yeah, I just remember practical advice (Leah, mother, 42 years)

3. Need for ED information about how to provide emotional support to children post-trauma

I think it would have been a good idea to... just to talk about it with someone...and go through it... because in the day to day hustle and bustle of things its easily to... not prioritise it because it is an immediate incident in her life...but... it's just dropped off my radar a bit and I think I should be more aware that stuff might come out and probably will come out... I suppose just to make some more time to be aware of it, aware of potential feelings. Yeah, I think that would have been useful actually. (Anna, mother, 42 years)

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| 4. Parental uncertainty about accessing formal psychological treatment | <p>Interviewer: If you were a bit worried about David and how was doing and you're family, maybe as a whole, sort of emotionally, is there somewhere you would maybe go to get help?</p> <p>Mother: I don't even know where I'd think to start. I wouldn't even have a clue. (Eliza, mother, 29 years)</p> |
| 5. Interest in formal support for parents post-trauma | <p>I would probably look in the internet first try to find some people who have similar experience and get together or find out how they coped and try to get advice from them how they went through the horrible incident. I think that's what I would probably do. (Martha, mother, 42 years)</p> |

Impact of the Trauma on the Parent.

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| 1. Parental unwillingness to receive psychological support | <p>The last thing I'd want to do is be starting to be, I don't know, medicated or take some time off work because I've done enough of that already and my way of dealing with it is just to get on get on with it. (Reuben, father, 44 years)</p> |
| 2. Parental distress | <p>When we came back from hospital, we didn't talk about it too much because I, actually, it was me who was upset about it all more and when someone came to me and started to talk about it I was just crying for a few days. So it took me a few days to get over it. (Grace, mother, 40 years)</p> |
| 3. Parental feelings of anxiety and helplessness to care for their child | <p>Mother: He starts forgetting things. He forgot the shop shut down two years ago, we've been in the new shop loads and loads of times since then but he forgot it was shut down. So there's lots of things like that... so for ourselves it can be a little bit concerning but to the doctors we don't know if that will be concerning to them or if that's just normal...There was nothing explained to us.</p> <p>Interviewer: How does that make you feel?</p> <p>Mother: A little bit sheltered really like they don't want us to know. But obviously it's something that we need to know because if anything starts happening it's a concern isn't it really. There could be like potential serious health</p> |

risks when he's got a bleed on the brain. It's not like a bleed on his toe or something, its completely different. (Eliza, mother, 29 years)

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| 4. Parental self-blame or blame of others | I think I felt a bit guilty having given her two boiled sweets just to cheer her up a little bit and then when they came and asked us when did she last have anything to eat I thought "oh no! I know why you're asking that question" ...[and] because she'd had a milky coffee and a couple of boiled sweets, she hadn't got an empty stomach enough to operate on quicker possibly than they would have done ordinarily (Erin, mother, 49 years) |
| 5. Parental stress due to difficulty managing daily activities and child needs. | I think I think for me it's been tiring... I've had to swap all my hours about at work. I've still had to do either three or four days at work...so I'm still doing all that. I've still done all my normal bits and pieces around the home, as well as looking after Joshua, as well as running Joshua up and down to [hospital] ...yeah I think... it was tiring because even on my days off, it wasn't days off as such. (Annabelle, mother, 44 years) |
| 6. Parental coping strategies | I've not been able to switch off very much and obviously I've realised that I have to sometimes otherwise I'm going to be a waste of time to my family. So I've noticed... that I felt like going back and listening to music that I haven't listened to in a very long time...and [listening to this music] you, sort of, you drift off into it to a certain degree. (Reuben, father, 44) |
| 7. Support provided to children helpful to parent coping | Interviewer: Can you tell be a bit more about the things that you've been doing to emotionally support him?
Mother: We're all quite open, so lots of chatting and laughing and crying... I don't know what we do really. I suppose we eat lots together, and watch films, have a snuggle. Lots of cups of tea. So yeah, all that kind of stuff. I think that's me that's needed that more since he's come home than he has. (Freya, mother, 39 years) |
| 8. Parental use of avoidance as a coping strategy | Father: No, this is not this is something that we want to talk a lot. So not many our friends[are] aware of the incident, so we try to keep it private.
Interviewer: Do you mind if I ask why is that? |

Father: Yeah it's not something it's not some good thing happen to you, so we don't want to talk about it... we don't tell people about the accident. (Muhammad, father, 42 years)

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| 9. Parental experiences of social support | My friends, the ones that live closer to me, are the ones that sort of said "do you need anything?" and it could be smaller things like "shall I do some food shopping for you guys and we can bring it in?" ...You know, for the days of the operation... you're not thinking about going food shopping and that sort of stuff...and we do have quite a large social circle so there is always somebody on hand. (Harriet, mother, 37 years) |
| 10. Support from parents' workplace | Work were very accommodating...they were really good...you know, they realise what I can do and my boss said family first is his first thing and he really he did trust me to catch up and do what's needed. (Luca, father, 49 years) |
| 11. Social support experienced as an additional stressor | What I really struggled with in the first few days of the accident was everyone ringing me. It really, really bugged me because I couldn't answer everyone individually and quite frankly I didn't want to... I didn't like how I was but it was it was totally the right thing to do at the time because then I could commit one hundred and twenty percent to my family. (Reuben, father, 44 years) |

Note: All of the quotations have been anonymised and participants have been assigned pseudonyms by the researcher.

Appendix 5: Paper 2 and Paper 3 Approval Letters

NRES ethics approval letter



NRES Committee South Central - Berkshire B

Bristol REC Centre
Whitefriars
Level 3, Block B
Lewins Mead
Bristol
BS1 2NT

Telephone: 01173421331
Facsimile: 01173420445

25 February 2014

Dr Cathy Creswell
Principal Research Fellow
University of Reading
School of Psychology and CLS
Earley Gate, Whiteknights
Reading
RG6 6AL

Dear Dr Creswell

Study title:	A Qualitative Study of Parental Responses to Child Experiences of Trauma
REC reference:	14/SC/0043
IRAS project ID:	141798

Thank you for your letter of 13 February 2014, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager Miss Stephanie Macpherson, nrescommittee.southcentral-berkshireb@nhs.net.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (catherineblewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Advertisement	Poster Emergency Department and CAMHS 1	13 December 2013
Advertisement	2	13 February 2014
Evidence of insurance or indemnity		06 January 2014
GP/Consultant Information Sheets	CAMHS Participants 1	13 December 2013
Interview Schedules/Topic Guides	Background Information Interview 1	13 December 2013
Interview Schedules/Topic Guides	Parent Interview Schedule 1	13 December 2013
Investigator CV	(Chief Investigator) Catharine Creswell	01 November 2010
Investigator CV	(Academic Supervisor) Dr Sarah Halligan	06 November 2013
Investigator CV	(Student) Victoria Williamson	13 December 2013
Letter from Sponsor	University of Reading	06 January 2014
Letter of invitation to participant	Emergency Department Version 1	13 December 2013
Letter of invitation to participant	Emergency Department Postal Version 1	13 December 2013
Letter of invitation to participant	CAMHS Version 1	13 December 2013

Letter of invitation to participant	CAMHS Postal Version	13 December 2013
Other: Pre-Screening Form	1	13 December 2013
Other: Letter from Funder (ESRC Award Letter)		
Other: UCLA RI Adolescent	2	13 February 2014
Other: UCLA RI Child	2	13 February 2014
Participant Consent Form: Parental Consent Form Emergency Department	1	13 December 2013
Participant Consent Form: Participant Consent Form aged 16 years Emergency Department	1	13 December 2013
Participant Consent Form: Child Assent Form Emergency Department	1	13 December 2013
Participant Consent Form: 16 Consent Form	2	13 February 2014
Participant Consent Form: CAMHS 16 Consent Form	2	13 February 2014
Participant Information Sheet: Parent Version Emergency Department	1	13 December 2013
Participant Information Sheet: Child aged 11-16 years Emergency Department	1	13 December 2013
Participant Information Sheet: Child aged 6-10 years Emergency Department	1	13 December 2013
Participant Information Sheet: CAMHS 11-16 Information Sheet	2	13 February 2014
Participant Information Sheet: CAMHS 6-10 Information Sheet	2	13 February 2014
Participant Information Sheet: Child 6-10 Information Sheet	2	13 February 2014
Participant Information Sheet: Child 11-16 Information Sheet	2	13 February 2014
Participant Information Sheet: Parent Information Sheet	2	13 February 2014
Participant Information Sheet: CAMHS Parent Information Sheet	2	13 February 2014
Protocol	1	13 December 2013
Questionnaire: (Validated) Depression Anxiety Stress Scales (short form)		
Questionnaire: (Validated) Posttraumatic Diagnostic Scale		
Questionnaire: (Validated) Revised Child Anxiety and Depression Scale		
Questionnaire: (Validated) UCLA PTSD Reaction Index		
Questionnaire: (Non-Validated) Parental Trauma Responses Questionnaire	1	06 November 2013
REC application	1	08 January 2014
Referees or other scientific critique report	ESRC Grant Reviews	
Response to Request for Further Information		13 February 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

14/SC/0043	Please quote this number on all correspondence
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We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely



Pp Dr John Sheridan
Chair

Email: nrescommittee.southcentral-berkshireb@nhs.net

Enclosures: "After ethical review – guidance for researchers" [SL-AR2]

Copy to: Mike Proven, University of Reading
m.j.proven@reading.ac.uk

Sylvia Warwick, Berkshire Healthcare NHS Foundation Trust
Sylvia.Warwick@berkshire.nhs.uk

University of Reading approval letter



Coordinator for Quality Assurance in Research
Dr Mike Proven, BSc(Hons), PhD

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Dr Cathy Creswell
Principal Research Fellow
School Psychology and Clinical Language
Sciences
University of Reading
RG6 6AL

29 April 2014

Dear Cathy

UREC 14/20: Parental responses to child experiences of trauma: PROTECT study. Favourable opinion

Thank you for your helpful and informative response (email from Victoria Williamson, dated 28 April 2014 and including attachments refers) to the Committee's report on your recent application. I can confirm that the Chair is pleased to confirm a favourable ethical opinion on the basis of this information and documentation.

Please note that the Committee will monitor the progress of projects to which it has given favourable ethical opinion approximately one year after such agreement, and then on a regular basis until its completion.

Please also find attached Safety Note 59: Incident Reporting in Human Interventional Studies at the University of Reading, to be followed should there be an incident arising from the conduct of this research.

The University Board for Research and Innovation has also asked that recipients of favourable ethical opinions from UREC be reminded of the provisions of the University Code of Good Practice in Research. A copy is attached and further information may be obtained here: <http://www.reading.ac.uk/internal/res/QualityAssuranceInResearch/reas-RSgar.aspx>.

Yours sincerely

Dr M J Proven
Coordinator for Quality Assurance in Research (UREC Secretary)
cc: Dr John Wright (Chair); Dr Laurie Butler (Head of School); Victoria Williamson (PhD student); Dr Sarah Halligan (University of Bath)

This letter and all accompanying documents are confidential and intended solely for the use of the addressee

University of Bath approval email

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Inbox: Ethics 15-218 (1 of 1436)

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Date: Today, 07:42:49 AM GMT

From: psychology-ethics <psychology-ethics@bath.ac.uk>

To: Victoria Williamson <V.Williamson@bath.ac.uk>

Subject: Ethics 15-218

Parts: 0 Alternative part 2 KB

1 Text part 1 KB

2 Text part 1 KB

Text part (1 KB)

Dear Victoria Williamson

Reference Number 15-218: Parental Responses to Child Experiences of Trauma: PROTECT Study

The ethics committee have considered your ethics proposal for the study above and have given it full ethical approval.

Best wishes with your research.

Dr Michael J Proulx
Chair, Psychology Research Ethics Committee?

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CHUMS approval letter



CHUMS Ethical Approval

Researcher: <i>Vici Williamson UNIOF READING</i>		
Title: <i>Parental Responses to child experiences of trauma</i>		
Team	Date	Accepted
<i>UNF NRES</i>	<i>25/2/14</i>	<input checked="" type="checkbox"/>
Psych	<i>18/3/15</i>	<input checked="" type="checkbox"/>
Clinical	<i>18/3/15</i>	<input checked="" type="checkbox"/>
Board	<i>14/15</i>	<input checked="" type="checkbox"/> <i>DT</i>
Supporting Forms reviewed:		
Consent <input checked="" type="checkbox"/> Participant Information <input checked="" type="checkbox"/>		
Semi-structured interview <input checked="" type="checkbox"/> De-brief Information <input type="checkbox"/>		
Comments:		
<p><i>Large study which relates directly to our trauma service</i></p> <p><i>It has passed strict NRES ethics guidelines</i></p> <p><i>[Signature]</i></p>		

Appendix 6: Paper 2 and Paper 3 Participant Information Sheets

Parent information sheet for participants recruited from Emergency Departments



Parental Responses to Child Experiences of Trauma

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Talk to others about the study if you wish.

Part 1 tells you the purpose of this study and what will happen if you take part.

Part 2 gives you more detailed information about the conduct of the study.

Ask us if there is anything that is not clear.

Purpose of the study

We are conducting a research study looking at how young people cope shortly after being involved in any kind of frightening experience. We hope that 40 parents and their child will take part. Many children experience distress following such experiences, and for some this is severe and prolonged. Parents are usually the main source of support for children following traumatic events, and we want to learn more about the ways in which they provide that support. If we can identify things that parents do that are particularly helpful for children, then in the future we will be able to provide better information for families and professionals regarding ways of helping children to cope with traumatic events.

The research team

The lead researcher for this study is Victoria Williamson, a PhD student at the University of Reading. This research forms part of her PhD thesis and it is being supervised by Dr Cathy Creswell, Clinical Psychologist, at the School of Psychology and Clinical Language Studies at the University of Reading.

Why have I been invited?

You have been invited to take part because your child was recently taken to A&E following a potentially frightening experience. **Even if you/your child didn't see the experience as being particularly frightening you may still be able to join in our study.**

Do we have to take part?

No, it is up to you and your child to decide. If you do want to join in then you'll be asked to sign a consent form, a copy of which you can keep with this information sheet. Even if you do consent to join the study, both you and your child will be free to withdraw at any point *without giving us a reason*. You will not be treated any differently by any NHS service if you choose not to participate in this study or if you decide to withdraw.

What the study will involve?

Researchers will send you some questionnaires to fill in. These questionnaires can be sent to you by post or filled in online. If you would prefer to complete the questionnaires in person, researchers can come to you in your home, or you can come to the University to complete them.

There will also be an interview where researchers will ask you about the event that caused your child to be taken to A&E, and any reactions since the experience. The interview can take place over the phone, or researchers can come to you in your home, or you can come to us if you prefer. With your agreement, we will audio record the interview, so that we can carry out a detailed examination of responses to our interviews. Following the interview, we will send you a brief summary of what was said in the interview along with our contact details if you would like to discuss anything further. If you wish, the researchers can provide a copy of your interview transcript. If you would like a copy of the interview transcript please just let one of the study

researchers know. The questionnaires will take about 10 to 20-minutes to fill in, while the interview will last about half an hour. Your child will not be interviewed.

In addition, we would like to invite your child to fill in some questionnaires about their thoughts and feelings since the experience. Your child can be complete these questionnaires by post or online. If your child would prefer to complete the questionnaires in person, researchers can come to your home, or your family can come to the University to complete them.

Expenses and payments

As a thank you for taking part, we are able to give families in our study £10. If you wish to complete the interview or questionnaires at the University we will reimburse your travel expenses.

Might anything about the research upset me or my child?

Although talking about frightening events can be upsetting, we do not think that it is likely that the adults or young people taking part in our study will become very distressed as a result. If the interview or questionnaires do prove very distressing for you or your child, study researchers will be available to help. If necessary, they can put you in touch with health professionals who are experienced in working with young people and their parents.

What are the possible benefits of taking part?

There is no intended direct benefit to taking part, although some people find it helpful to have the chance to talk about distressing events. *It is hoped that the information we get from this study will help improve the support that is available to children and their families following trauma.*

What if we are experiencing emotional difficulties after the frightening experience?

If we think that you or your child might be suffering from any serious problems relating to the frightening event, we will talk to you about the possibility of receiving help through your GP and your local NHS Mental Health Services (if you aren't already receiving support).

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. The details are included in Part 2.

Thank you! This completes part 1.

If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.

If you have questions or want to know more you can ask study researchers at any time.

Cathy Creswell

Address: School of Psychology & Clinical
Language Sciences, University of Reading,
Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

Victoria Williamson

Address: School of Psychology & Clinical
Language Sciences, University of Reading,
Reading, RG6 7BE

Telephone number: 0118378 6487/ 01225384657

Email: v.williamson@pgr.reading.ac.uk

Information Sheet Part 2: Study Conduct

Who is running this study?

The study is a joint project between the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust, the University of Reading, and the Economic and Social Research Council (ESRC), which is funding the study.

Confidentiality

All information collected during the research will be kept strictly confidential. The assessments that you complete will be stored under an anonymous ID number, not by name, and will be kept securely in locked cabinets or on secure servers at the University of Reading. Assessments will only be accessed by study researchers. Your assessments will be kept for 10-years following completion of the study and then will be destroyed. The only time that we would share your information without your agreement is if we believe that you or someone else is at serious risk of harm. In this case, we would talk to you first.

The results of the study may be published in order to help other families who have been in frightening events, but we would not publish any details that might identify you or your child. We will also make some study data available to other scientists (in line with ESRC policy); it is up to you whether the information that you provide to us is shared in this way (see consent form). We would not share your personal details or other information that is likely to identify you or your child.

What happens to our information if we withdraw from the study?

If you withdraw from the study it is up to you whether we use any information we have already collected. If you want your information to be removed from the study then you just need to let us know and your assessments will be destroyed.

Has this research study been approved by an ethics committee?

Yes, this study has been reviewed and been given a favourable opinion by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study has been cleared to work with children and adolescents.

I have some questions about this study, who do I contact?

You can contact Dr Cathy Creswell at the University of Reading, who is in charge of this project. Her address and contact details are:

Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

What if I am not happy about the research study?

If you have a concern about any aspect of this study, you should speak to Cathy Creswell (contact details above) who will do her best to answer your questions. If you remain unhappy and wish to complain formally, you can then you can obtain details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Thank you very much for reading this information sheet about the PROTECT study. We hope that you decide to take part in this study.

Adolescent information sheet for participants recruited from Emergency Departments



How do children and their families react after a frightening event?

We are inviting you to take part in our study about how young people and their families feel after frightening experiences. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family.

Why are we doing this research?

We are running a research study looking at how young people and their families react after being involved in any kind of frightening experience. We are asking you to take part in this study so that we can learn more about how to help any young people who have problems after a being in a frightening event. We especially want to understand how families can support young people who do have difficulties.

Why have I been invited to take part?

Something happened to you that may have been frightening or distressing. We would like 40 young people who have had an experience like yours to take part in our study. Even if you didn't feel that frightened or upset at the time, you may still be able to join our study.

Do I have to take part?

No. It is completely up to you and we will ask you for your agreement. We will give you a copy of this information sheet to keep. You are free to stop taking part at any time, without giving any reason.

What will happen if I take part?

We would ask you to fill in some questionnaires, in the post or you can complete them online. If you prefer someone to be with you when you complete the questionnaires in person, we can come to you in your home, or you can come to us. The questionnaires will ask you about the frightening event, and any problems you might have had since it happened. The questionnaires will take about 10-minutes to fill in. We will also speak to your parent or carer separately about the frightening event and how you have been feeling since.

What if I feel upset after the questionnaires?

If you feel upset while filling in the questionnaires then you can contact us and tell us how you are feeling and we can talk about it. You can always take a break from answering the questionnaires, go and talk to your parent or carer, or decide to stop taking part.

What are the possible benefits of taking part?

Taking part in our study is unlikely to be of direct help to you. We hope the research will help us to understand how parents and others can best support children following a frightening experience, and may result in better care in the future for children who are experiencing difficulties following a frightening event.

Contact details

If you want to talk to someone about the study you can contact Cathy Creswell, the researcher in charge

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct line: 0118378 6798

Email: c.creswell@reading.ac.uk

You can also ask the study researcher any questions that you have:

Victoria Williamson

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct Line: 0118378 6487 / 01225384657

Email: v.williamson@pgr.reading.ac.uk

Thank you for reading this far! If you think that you want to take part in our study then read on - you will find more information that you will need.

If you are unhappy and want to make a complaint about this project you can find details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), and contact them on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Will anyone else know I'm doing this?

We will keep your information in confidence. This means we will not share any of the personal information that you provide us with anyone outside the research study team. The only time we would share your information is if you told us that you or someone else was at serious risk of harm or danger. Then, we would talk to you before speaking to an adult - like your parent or carer or your family doctor.

Who is organising and funding the research?

The study is a joint project between the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust and the University of Reading. The Economic and Social Research Council have provided money for the study to run.

Who has reviewed the study?

Before any research goes ahead it has to be reviewed by a Research Ethics Committee. They make sure that the research is fair. Your project has been checked and been given approval by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study is allowed to work with children and young people.

Thank you very much for reading this information sheet about our study - we hope you decide to take part.

Child information sheet for participants recruited from Emergency Departments



How do children and their families think, feel and act after a scary event?

What is research? Why is this research being done?

Research is a way we try to find out the answers to questions. We want to learn about how children and their families think, feel and act after something scary happens so we can understand better what help they need.



Why have I been asked to take part?

You have been asked to join in because something happened to you that might have been frightening or scary. We would like 40 children who have had something scary happen to take part in our research. Even if you didn't feel very scared at the time, you still might be able to join in.

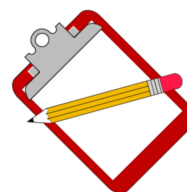
Do I have to take part?

No, it is up to you and your family to choose if you want to join in.

What happens if I take part in the research?

We would ask you to answer some questions. We can send you the questions to answer in the post or you can answer them on the computer. If you want, we can come and visit your house or you can come and visit us at the University to help you answer the questions.

The questions will ask you about the scary thing that happened and how you have felt since. The questions will take about 10 minutes to answer. We will also speak to your mum or dad about what happened.



Who will know I am taking part in this research?



We won't tell anyone else that we are asking you some questions, but you can tell other people about it if you want to!

Everything you tell us is treated like a secret, so we won't share what you tell us with anyone else.

The only time we would not be able to keep a secret is if you told us that you or someone else was in real danger. Then, we would speak to you before speaking to an adult - like one of the grownups that looks after you or your family doctor.

What happens if I feel upset?

If you feel upset when answering the questions then you can call us or send us an email or letter to tell us about this. You can always take a break from answering the questions, talk to your parents or carer, or just stop taking part. It is completely up to you.

Will joining in help me?

We cannot promise that the study will help you, but we hope what you tell us will teach us about how to help other children and their families who are upset after something frightening happens.

What if I feel really bad after what happened to me?

If you really feel bad because of what happened we will talk to



you and your family about how you can get help.

What if I don't want to do the research anymore?

If you don't want to answer any more questions, just tell your parents or carer or tell us. It is OK to change your mind at any time.



Did anyone check the research is OK to do?

Before any research is allowed to happen, it has to be checked by a group of people called a Research Ethics Committee. They make sure that the research is OK to do. Your project has been checked by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working with us is allowed to work with children.

What if I have more questions?

You can ask us any questions you might have and you can telephone or email us any time – we will be happy to talk to you.



Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

Victoria Williamson

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Telephone number: 0118378 6487 / 01225384657

Email: v.williamson@pgr.reading.ac.uk

Thank you very much for reading about our research - we hope you decide to take part.

Parent information sheet for participants recruited from CAMHS



Parental Responses to Child Experiences of Trauma

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Talk to others about the study if you wish.

Part 1 tells you the purpose of this study and what will happen if you take part.

Part 2 gives you more detailed information about the conduct of the study.

Ask us if there is anything that is not clear.

Purpose of the study

We are conducting a research study looking at how young people cope after being involved in any kind of frightening experience. We hope that 40 parents and their child will take part. Many children experience distress following such experiences, and for some this is severe and prolonged. Parents are usually the main source of support for children following traumatic events, and we want to learn more about the ways in which they provide that support. If we can identify things that parents do that are particularly helpful for children, then in the future we will be able to provide better information for families and professionals regarding ways of helping children to cope with traumatic events.

The research team

The lead researcher for this study is Victoria Williamson, a PhD student at the University of Reading. This research forms part of her PhD thesis and it is being supervised by Dr Cathy Creswell, Clinical Psychologist, at the School of Psychology and Clinical Language Studies at the University of Reading.

Why have I been invited?

You have been invited to take part because your child was referred to CAMHS after experiencing a frightening event.

Do we have to take part?

No, it is up to you and your child to decide. If you do want to join in then you'll be asked to sign a consent form, a copy of which you can keep with this information sheet. Even if you do consent to join the study, both you and your child will be free to withdraw at any point *without giving us a reason*. You will not be treated any differently by any NHS service if you choose not to participate in this study or if you decide to withdraw.

What the study will involve?

Researchers will send you some questionnaires to fill in. These questionnaires can be sent to you by post or filled in online. If you would prefer to complete the questionnaires in person, researchers can come to you in your home, or you can come to the University to complete them.

There will also be an interview where researchers will ask you about the event that your child experienced, and any reactions since the event. The interview can take place over the phone, or researchers can come to you in your home, or you can come to us if you prefer. With your agreement, we will audio record the interview, so that we can carry out a detailed examination of responses to our interviews. Following the interview, we will send you a brief summary of what was said in the interview along with our contact details if you would like to discuss anything further. If you wish, the researchers can provide a copy of your interview transcript. If you would like a copy of the interview transcript please just let one of the study researchers

know. The questionnaires will take about 10 to 20-minutes to fill in, and the interview will last about half an hour. Your child will not be interviewed.

In addition, we would like to invite your child to fill in some questionnaires about their thoughts and feelings since the experience. Your child can complete these questionnaires by post or online or if your child would prefer to complete the questionnaires in person, researchers can come to your home, or your family can come to the University to complete them.

Expenses and payments

As a thank you for taking part, we are able to give families in our study £10. If you wish to complete the interview at the University we also will reimburse your travel expenses.

Might anything about the research upset me or my child?

Although talking about frightening events can be upsetting, we do not think that it is likely that the adults or young people taking part in our study will become very distressed as a result. If the interview or questionnaires do prove very distressing for you or your child, study researchers will be available to help. If necessary, they can put you in touch with health professionals who are experienced in working with young people and their parents.

What are the possible benefits of taking part?

There is no intended direct benefit to taking part, although some people find it helpful to have the chance to talk about distressing events. *It is hoped that the information we get from this study will help improve the support that is available to children and their families following trauma.*

What if we are experiencing emotional difficulties after the frightening experience?

If we think that you or your child might be suffering from any serious problems relating to the frightening event, we will talk to you about the possibility of receiving help through your GP and your local NHS Mental Health Services (if you aren't currently receiving support).

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. The details are included in Part 2.

Thank you! This completes part 1.

If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.

If you have questions or want to know more you can ask study researchers at any time.

Cathy Creswell

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Telephone number: 0118378 6798

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Information Sheet Part 2: Study Conduct

Who is running this study?

The study is a joint project between the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust, the University of Reading, and the Economic and Social Research Council (ESRC), which is funding the study.

Confidentiality

All information collected during the research will be kept strictly confidential. The assessments that you complete will be stored under an anonymous ID number, not by name, and will be kept securely in locked cabinets or on secure servers at the University of Reading. Assessments will only be accessed by study researchers. Your assessments will be kept for 10-years following completion of the study and then will be destroyed.

With your permission, we will send a letter to your child's GP informing them of you and your child's participation and a brief summary of this study. The only time that we would share your information without your agreement is if we believe that you or someone else is at serious risk of harm. In this case, we would talk to you first.

The results of the study may be published in order to help other families who have been in frightening events, but we would not publish any details that might identify you or your child. We will also make some study data available to other scientists (in line with ESRC policy); it is up to you whether the information that you provide to us is shared in this way (see consent form). We would not share your personal details or other information that is likely to identify you or your child.

What happens to our information if we withdraw from the study?

If you withdraw from the study it is up to you whether we use any information we have already collected. If you want your information to be removed from the study then you just need to let us know and your assessments will be destroyed.

Has this research study been approved by an ethics committee?

Yes, this study has been reviewed and been given a favourable opinion by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study has been cleared to work with children and adolescents.

I have some questions about this study, who do I contact?

You can contact Dr Cathy Creswell at the University of Reading, who is in charge of this project. Her address and contact details are:

Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

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What if I am not happy about the research study?

If you have a concern about any aspect of this study, you should speak to Cathy Creswell (contact details above) who will do her best to answer your questions. If you remain unhappy and wish to complain formally, you can then you can obtain details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Thank you very much for reading this information sheet about the PROTECT study.
We hope that you decide to take part in this study.

Adolescent information sheet for participants recruited from CAMHS



How do children and their families react after a frightening event?

We are inviting you to take part in our study about how young people and their families feel after frightening experiences. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family.

Why are we doing this research?

We are running a research study looking at how young people and their families react after being involved in any kind of frightening experience. We are asking to you take part in this study so that we can learn more about how to help any young people who have problems after a being in a frightening event. We especially want to understand how families can support young people who do have difficulties.

Why have I been invited to take part?

Something happened to you that may have been frightening or distressing. We would like 40 young people who have had an experience like yours to take part in our study. Even if you didn't feel that frightened or upset at the time, you may still be able to join our study.

Do I have to take part?

No. It is completely up to you and we will ask you for your agreement. We will give you a copy of this information sheet to keep. You are free to stop taking part at any time, without giving any reason.

What will happen if I take part?

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What if I feel upset after the questionnaires?

If you feel upset while filling in the questionnaires then you can contact us and tell us how you are feeling and we can talk about it. You can always take a break from answering the questionnaires, go and talk to your parent or carer, or decide to stop taking part.

What are the possible benefits of taking part?

Taking part in our study is unlikely to be of direct help to you. We hope the research will help us to understand how parents and others can best support children following a frightening experience, and may result in better care in the future for children who are experiencing difficulties following a frightening event.

Contact details

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Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct line: 0118378 6798

Email: c.creswell@reading.ac.uk

You can also ask the study researcher any questions that you have:

Victoria Williamson

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct Line: 0118378 6487 / [01225384657](tel:01225384657)

Email: v.williamson@pgr.reading.ac.uk

Thank you for reading this far! If you think that you want to take part in our study then read on - you will find more information that you will need.

Information for Children (11-12 years) CAMHS Version 3

30/06/2014

If you are unhappy and want to make a complaint about this project you can find details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), and contact them on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Will anyone else know I'm doing this?

With your permission, we would inform your GP that you and your parent or carer are taking part in the study. We will keep your information in confidence. This means we will not share any of the personal information that you provide us with anyone outside the research study team. The only time we would share the information you provide is if you told us that you or someone else was at serious risk of harm or danger. Then, we would talk to you before speaking to an adult - like your parent or carer or your family doctor.

Who is organising and funding the research?

The study is a joint project between the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust and the University of Reading. The Economic and Social Research Council have provided money for the study to run.

Who has reviewed the study?

Before any research goes ahead it has to be reviewed by a Research Ethics Committee. They make sure that the research is fair. Your project has been checked and been given approval by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study is allowed to work with children and young people.

Thank you very much for reading this information sheet about our study - we hope you decide to take part.

Child information sheet for participants recruited from CAMHS



**University of
Reading**

How do children and their families think, feel and act after a scary event?

What is research? Why is this research being done?

Research is a way we try to find out the answers to questions. We want to learn about how children and their families think, feel and act after something scary happens so we can understand better what help they need.



Why have I been asked to take part?

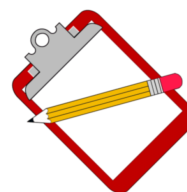
You have been asked to join in because something happened to you that might have been frightening or scary. We would like 40 children who have had something scary happen to take part in our research. Even if you didn't feel very scared at the time, you still might be able to join in.

Do I have to take part?

No, it is up to you and your family to choose if you want to join in.

What happens if I take part in the research?

We would ask you to answer some questions. We can send you the questions to answer in the post or you can answer them on the computer. If you want, we can come and visit your house or you can come and visit us at the University to help you answer the questions.



The questions will ask you about the scary thing that happened and how you have felt since. The questions will take about 10 minutes to answer. We will also speak to your mum or dad about what happened.

Who will know I am taking part in this research?



If you agree, we will tell your family doctor that you and your parent or carer are taking part in our research. We won't tell anyone else that we are asking you some questions, but you can tell other people about it if you want to!

Everything you tell us is treated like a secret, so we won't share what you tell us with anyone else.

The only time we would not be able to keep a secret is if you told us that you or someone else was in real danger. Then, we would speak to you before speaking to an adult - like one of the grownups that looks after you or your family doctor.

What happens if I feel upset?

If you feel upset when answering the questions then you can call us or send us an email or letter to tell us about this. You can always take a break from answering the questions, talk to your parents or carer, or just stop taking part. It is completely up to you.



Will joining in help me?

We cannot promise that the study will help you, but we hope what you tell us will teach us about how to help other children and their families who are upset after something frightening happens.

What if I feel really bad after what happened to me?

If you really feel bad because of what happened we will talk to you and your family about how you can get help.

What if I don't want to do the research anymore?

If you don't want to answer any more questions, just tell your parents or carer or tell us. It is OK to change your mind at any time.

**Did anyone check the research is OK to do?**

Before any research is allowed to happen, it has to be checked by a group of people called a Research Ethics Committee. They make sure that the research is OK to do. Your project has been checked by the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working with us is allowed to work with children.

What if I have more questions?

You can ask us any questions you might have and you can telephone or email us any time – we will be happy to talk to you.



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Email: v.williamson@pgr.reading.ac.uk

Thank you very much for reading about our research - we hope you decide to take part.

Parent information sheet for participants recruited from CHUMS



**University of
Reading**



Parental Responses to Child Experiences of Trauma

We would like to invite you to take part in our research study. Before you decide we would like you to understand why the research is being done and what it would involve for you. Talk to others about the study if you wish.

Part 1 tells you the purpose of this study and what will happen if you take part.

Part 2 gives you more detailed information about the conduct of the study.

Ask us if there is anything that is not clear.

Purpose of the study

We are conducting a research study looking at how young people cope after being involved in any kind of frightening experience. We hope that 40 parents and their child will take part. Many children experience distress following such experiences, and for some this is severe and prolonged. Parents are usually the main source of support for children following traumatic events, and we want to learn more about the ways in which they provide that support. If we can identify things that parents do that are particularly helpful for children, then in the future we will be able to provide better information for families and professionals regarding ways of helping children to cope with traumatic events.

The research team

The lead researcher for this study is Victoria Williamson, a PhD student at the University of Reading. This research forms part of her PhD thesis and it is being supervised by Dr Cathy Creswell, Clinical Psychologist, at the School of Psychology and Clinical Language Studies at the University of Reading.

Why have I been invited?

You have been invited to take part because your child received treatment from CHUMS after experiencing a frightening event.

Do we have to take part?

No, it is up to you and your child to decide. If you do want to join in then you'll be asked to sign a consent form, a copy of which you can keep with this information sheet. Even if you do consent to join the study, both you and your child will be free to withdraw at any point *without giving us a reason*. You will not be treated any differently by any CHUMS or NHS services if you choose not to participate in this study or if you decide to withdraw.

What the study will involve?

Researchers will send you some questionnaires to fill in. These questionnaires can be sent to you by post or filled in online. If you would prefer to complete the questionnaires in person, researchers can come to you in your home, or you can come to the University to complete them.

There will also be an interview where researchers will ask you about the event that your child experienced, and any reactions since the event. The interview can take place over the phone, or researchers can come to you in your home, or you can come to us if you prefer. With your agreement, we will audio record the interview, so that we can carry out a detailed examination of responses to our interviews. Following the interview, we will send you a brief summary of what was said in the interview along with our contact details if you would like to discuss anything further. If you wish, the researchers can provide a copy of your interview transcript. If you would like a copy of the interview transcript please just let one of the study researchers know. The questionnaires will take about 10 to 20-minutes to fill in, and the interview will last about half an hour. Your child will not be interviewed.

In addition, we would like to invite your child to fill in some questionnaires about their thoughts and feelings since the experience. Your child can complete these questionnaires by post or online or if your child would prefer to complete the questionnaires in person, researchers can come to your home, or your family can come to the University to complete them.

Expenses and payments

As a thank you for taking part, we are able to give families in our study £10. If you wish to complete the interview at the University we also will reimburse your travel expenses.

Might anything about the research upset me or my child?

Although talking about frightening events can be upsetting, we do not think that it is likely that the adults or young people taking part in our study will become very distressed as a result. If the interview or questionnaires do prove very distressing for you or your child, study researchers will be available to help. If necessary, they can put you in touch with health professionals who are experienced in working with young people and their parents.

What are the possible benefits of taking part?

There is no intended direct benefit to taking part, although some people find it helpful to have the chance to talk about distressing events. *It is hoped that the information we get from this study will help improve the support that is available to children and their families following trauma.*

What if we are experiencing emotional difficulties after the frightening experience?

If we think that you or your child might be suffering from any serious problems relating to the frightening event, we will talk to you about the possibility of receiving help through CHUMS, your GP and your local NHS Mental Health Services (if you aren't currently receiving support).

What if there is a problem?

Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. The details are included in Part 2.

Thank you! This completes part 1.

If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.

If you have questions or want to know more you can ask study researchers at any time.

Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

Victoria Williamson

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6487 / 01225384657

Email: v.williamson@pgr.reading.ac.uk

Information Sheet Part 2: Study Conduct

Who is running this study?

The study is a joint project between CHUMS, the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust, the University of Reading, and the Economic and Social Research Council (ESRC), which is funding the study.

Confidentiality

All information collected during the research will be kept strictly confidential. The assessments that you complete will be stored under an anonymous ID number, not by name, and will be kept securely in locked cabinets or on secure servers at the University of Reading. Assessments will only be accessed by study researchers. Your assessments will be kept for 10-years following completion of the study and then will be destroyed.

With your permission, we will send a letter to your child's GP informing them of you and your child's participation and a brief summary of this study. The only time that we would share your information without your agreement is if we believe that you or someone else is at serious risk of harm. In this case, we would talk to you first.

The results of the study may be published in order to help other families who have been in frightening events, but we would not publish any details that might identify you or your child. We will also make some study data available to other scientists (in line with ESRC policy); it is up to you whether the information that you provide to us is shared in this way (see consent form). We would not share your personal details or other information that is likely to identify you or your child.

What happens to our information if we withdraw from the study?

If you withdraw from the study it is up to you whether we use any information we have already collected. If you want your information to be removed from the study then you just need to let us know and your assessments will be destroyed.

Has this research study been approved by an ethics committee?

Yes, this study has been reviewed and been given a favourable opinion by the CHUMS Ethics Committee, the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study has been cleared to work with children and adolescents.

I have some questions about this study, who do I contact?

You can contact Dr Cathy Creswell at the University of Reading, who is in charge of this project. Her address and contact details are:

Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

What if I am not happy about the research study?

If you have a concern about any aspect of this study, you should speak to Cathy Creswell (contact details above) who will do her best to answer your questions. If you remain unhappy and wish to complain formally, you can contact Dr Russell Hurn at CHUMS on 01525863924 or via Russell.Hurn@CHUMS.uk.com. You can also obtain details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Thank you very much for reading this information sheet about the PROTECT study.
We hope that you decide to take part in this study.

Adolescent information sheet for participants recruited from CHUMS



**University of
Reading**



How do children and their families react after a frightening event?

We are inviting you to take part in our study about how young people and their families feel after frightening experiences. Before you decide whether to join in, it's important you know why the research is being done and what it involves. Please read this leaflet carefully and, if you want to, discuss it with your family.

Why are we doing this research?

We are running a research study looking at how young people and their families react after being involved in any kind of frightening experience. We are asking you to take part in this study so that we can learn more about how to help any young people who have problems after a frightening event. We especially want to understand how families can support young people who do have difficulties.

Why have I been invited to take part?

Something happened to you that may have been frightening or distressing. We would like 40 young people who have had an experience like yours to take part in our study. Even if you didn't feel that frightened or upset at the time, you may still be able to join our study.

Do I have to take part?

No. It is completely up to you and we will ask you for your agreement. We will give you a copy of this information sheet to keep. You are free to stop taking part at any time, without giving any reason.

What will happen if I take part?

We would ask you to fill in some questionnaires, in the post or you can complete them online. If you prefer someone to be with you when you complete the questionnaires in person, we can come to you in your home, or you can come to us. The questionnaires will ask you about the frightening event, and any problems you might have had since it happened. The questionnaires will take about 10-minutes to fill in. We will also speak to your parent or carer separately about the frightening event and how you have been feeling since.

What if I feel upset after the questionnaires?

If you feel upset while filling in the questionnaires then you can contact us and tell us how you are feeling and we can talk about it. You can always take a break from answering the questionnaires, go and talk to your parent or carer, or decide to stop taking part.

What are the possible benefits of taking part?

Taking part in our study is unlikely to be of direct help to you. We hope the research will help us to understand how parents and others can best support children following a frightening experience, and may result in better care in the future for children who are experiencing difficulties following a frightening event.

Contact details

If you want to talk to someone about the study you can contact Cathy Creswell, the researcher in charge:

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct line: 0118378 6798

Email: c.creswell@reading.ac.uk

You can also ask the study researcher any questions that you have:

Victoria Williamson

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Direct Line: 0118378 6487 / 01225384657

Email: v.williamson@pgr.reading.ac.uk

Thank you for reading this far! If you think that you want to take part in our study then read on - you will find more information that you will need.

If you are unhappy and want to make a complaint about this project you can contact Dr Russell Hurn at CHUMS on 01525863924 or via Russell.Hurn@CHUMS.uk.com. You can also find details about the NHS Complaints Procedure from the Patient Advice and Liaison Service (PALS), and contact them on 0118 960 5027 or via BHT@berkshire.nhs.uk.

Will anyone else know I'm doing this?

With your permission, we would inform your GP that you and your parent or carer are taking part in the study. We will keep your information in confidence. This means we will not share any of the personal information that you provide us with anyone outside the research study team. The only time we would share the information you provide is if you told us that you or someone else was at serious risk of harm or danger. Then, we would talk to you before speaking to an adult - like your parent or carer or your family doctor.

Who is organising and funding the research?

The study is a joint project between CHUMS, the Royal Berkshire NHS Foundation Trust, the Berkshire Healthcare NHS Foundation Trust, the Royal United Hospital Bath NHS Trust and the University of Reading. The Economic and Social Research Council have provided money for the study to run.

Who has reviewed the study?

Before any research goes ahead it has to be reviewed by a Research Ethics Committee. They make sure that the research is fair. Your project has been checked and been given approval by the CHUMS Ethics Committee, the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working on this study is allowed to work with children and young people.

Thank you very much for reading this information sheet about our study - we hope you decide to take part.

Child information sheet for participants recruited from CHUMS



University of
Reading



How do children and their families think, feel and act after a scary event?

What is research? Why is this research being done?

Research is a way we try to find out the answers to questions. We want to learn about how children and their families think, feel and act after something scary happens so we can understand better what help they need.



Why have I been asked to take part?

You have been asked to join in because something happened to you that might have been frightening or scary. We would like 40 children who have had something scary happen to take part in our research. Even if you didn't feel very scared at the time, you still might be able to join in.

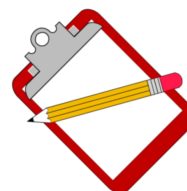
Do I have to take part?

No, it is up to you and your family to choose if you want to join in.

What happens if I take part in the research?

We would ask you to answer some questions. We can send you the questions to answer in the post or you can answer them on the computer. If you want, we can come and visit your house or you can come and visit us at the University to help you answer the questions.

The questions will ask you about the scary thing that happened and how you have felt since. The questions will take about 10 minutes to answer. We will also speak to your mum or dad about what happened.



Who will know I am taking part in this research?



If you agree, we will tell your family doctor that you and your parent or carer are taking part in our research. We won't tell anyone else that we are asking you some questions, but you can tell other people about it if you want to!

Everything you tell us is treated like a secret, so we won't share what you tell us with anyone else.

The only time we would not be able to keep a secret is if you told us that you or someone else was in real danger. Then, we would speak to you before speaking to an adult - like one of the grownups that looks after you or your family doctor.

What happens if I feel upset?

If you feel upset when answering the questions then you can call us or send us an email or letter to tell us about this. You can always take a break from answering the questions, talk to your parents or carer, or just stop taking part. It is completely up to you.



Will joining in help me?

We cannot promise that the study will help you, but we hope what you tell us will teach us about how to help other children and their families who are upset after something frightening happens.

What if I feel really bad after what happened to me?

If you really feel bad because of what happened we will talk to you and your family about how you can get help.

What if I don't want to do the research anymore?

If you don't want to answer any more questions, just tell your parents or carer or tell us. It is OK to change your mind at any time.



Did anyone check the research is OK to do?

Before any research is allowed to happen, it has to be checked by a group of people called a Research Ethics Committee. They make sure that the research is OK to do. Your project has been checked by the CHUMS Ethics Committee, the South Central – Berkshire B Research Ethics Committee and the Reading University Ethics Committee. Everyone working with us is allowed to work with children.

Committee. Everyone working with us is allowed to work with children.

What if I have more questions?

You can ask us any questions you might have and you can telephone or email us any time – we will be happy to talk to you.



Cathy Creswell

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6798

Email: c.creswell@reading.ac.uk

Victoria Williamson

Address: School of Psychology & Clinical Language Sciences, University of Reading, Reading, RG6 7BE

Telephone number: 0118378 6487 / 01225384657

Email: v.williamson@pgr.reading.ac.uk

Thank you very much for reading about our research - we hope you decide to take part.

Appendix 7: Paper 3 Themes and Sub-themes

Table 4.4

Themes and Sub-Themes Following Thematic Analysis with Supplementary Quotations.

Theme and sub-theme	Sample quote
Post-trauma Perceptions of the Child	
1. Understanding of children's coping via behavioural cues	I was like well this isn't right, this isn't like [her] to be saying "actually, it says forty miles per hour, so you've got to stick to forty miles per hour." It's just not normal to be going down six months down the line. (Lois, mother, 39 years)
2. Perceptions of the child as having experienced significant negative changes	Happy, outgoing, energetic, just a lovely normal kid.... he [then] became incredibly rude, aggressive... it was kind of like having an incredibly hostile [teenager] in the house. (Amala, mother, 55 years)
3. Child's post-trauma distress an isolated change	I've always said that on the surface at least she's essentially the same person she always has been but with this added sort of horrible thing that's going on in the background for her. (Aubrey, mother, 46 years)
4. Use of behavioural comparisons to determine child coping	I would say that Charlie is...not as outgoing... and I would say that a good chunk of that is down to what happened... Noah I think has come out of his shell quite a bit more and has grown his group of friends. I would say that Noah is probably less affected by things now than Charlie is. (Patrick, father, 38 years)

5. Gradual improvements in
child recovery

I would say over a period of maybe three months we slowly moved from always talking about the past... to very slightly starting to talk eventually about the future.... I think he has now in the last eight weeks has a sense that he has a future as a person. (Amala, mother 55 years)

Scaffolding Discussions of the
Trauma and Associated Distress

1. Encouraging openness

I needed her to know that she can always come and talk to me, doesn't matter...what's wrong with me, but she needs to be able to talk to me. It doesn't matter what she wants to tell me, but she can tell me and I will listen. (Lois, mother, 39 years)

Parental Warm Support

1. Reassurance

I think he's more worried now... I think he's worried that he can lose someone who is close to him...if he's feeling worried about someone, I talk to him and say "oh you don't have to worry about that, it's going to be fine. Or everyone can be ill because that's normal life." (Nora, mother, 34 years)

2. Addressing the child's
trauma-related anxiety

I'm trying to build up her confidence...And it's basically trying to find things that she enjoys that she's really good at so then it will help her think well actually I'm really good at this...and then taking on something else and then building her confidence. (Lois, mother, 39 years)

- | | |
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| 3. Parental encouragement of a positive perspective of the trauma | [David's] so appreciative of [my spouse] and what he's done because I did tell [David] if it hadn't been for [my spouse] then I wouldn't be here now and I know that because I would never have survived...so yeah [David is] very appreciative now of [my spouse]. (Francis, mother, 36 years) |
| 4. Mixed messages of safety and simultaneous encouragement of vigilance | I think he is a bit afraid of [the perpetrator] actually not [being] sentenced and being released and he asked me sometimes what's going to happen and what if he's not sentenced...then I said we will have to run...he's not fine of course because he has friends here but...he understands what will happen if we don't do it and probably our safety for him its more important than anything else. (Francis, mother, 36 years) |
| 5. Efforts to resume children's routines | Everything happened on the Monday... so [I] went back on Friday to work and [my son] went back to school... so, yeah, I think that kept us going, all of us, [my son] and [me]. (Francis, mother, 36 years) |
| 6. Addressing the child's negative appraisals | I can't say to them it's not going to happen again. Well, I say to them it doesn't really happen, it's one of them things that very rarely happens and unfortunately it happened to us...I said we can look at ways of stopping things from happening... and in a way, we've just got to get on with it. (Lois, mother, 39 years) |

Encouraging Avoidance

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|--|--|
| 1. Removal of child from contact with trauma reminders | No one [from his extended family] comes to see him... and I think maybe it's better if things stay like that because maybe...they can talk about [the event], I don't know, because I try to not talk about [it]. (Nora, mother, 34 years) |
|--|--|

2. Parental advocacy of avoidance as a coping strategy to prevent child distress

I said to [my family] “don’t talk” ...I always said that we don’t speak about [what happened] because ... I think they can say something that can hurt Lewis. Because, you know, I live with him every day and I know him, he’s sensitive. (Nora, mother, 34 years)

Perception of and Involvement in Treatment Sought for Post-Trauma Difficulties

1. Barriers to psychological treatment

The appointments haven’t been all that frequent so sometimes we might go and they’ll say “oh we’ll see you in a month’s time” and you think to yourself God, you know, another month of this? ... It feels like it’s very long and drawn out. (Aubrey, mother 46 years)

2. Psychological treatment experienced as helpful in addressing child recovery

Interviewer: What did the [children] sort of think of the treatments that they got?

Father: I thought it was excellent, really good. They definitely benefitted from it... working through the issues that they had did really help. (Patrick, father, 38 years)

3. Psychological treatment experienced as unhelpful with no child recovery gains

We talk a lot [at therapy] ...about how we deal with the problem at home.... but in as much as I appreciate that [the clinicians] are very well trained and they know what they’re talking about but ... a lot of it you just think to yourself I can’t really see what this has got to do with anything. (Aubrey, mother, 46 years)

4. High levels of parental engagement in treatment

We then were referred for the family therapy which I do go along to and sometimes [her father] comes if he can...[and] we talk about her and how she’s been mainly and... how we can help her to take steps she needs to take in order to break the cycle. (Aubrey, mother, 46 years)

- | | |
|---|--|
| 5. Psychological treatment provides parents with insight into child experiences of trauma | [The clinician] said David was affected by the incident because he started having nightmares and mood swings and everything but...for him it wasn't something that a child would just think or dream of or just see in the horror movies, for him it was all kind of real. (Francis, mother, 36 years) |
| 6. Psychological treatment assists parents in caring for their child | [She] had four sessions and each session you'd see that it was helping and [she] actually wrote a story as well...which I read to [her] before [she] went to bed so then [she] could make sense of it in [her] head as well ...all these little activities we did; I wouldn't have thought of it. (Lois, mother, 39 years) |
| 7. Desire for further information about child recovery and coping | Nobody helped us through the PTSD...we needed advice about what to do, and what's normal, and what to expect, and how bad it might get... I was never at any point told what was likely to happen... I can't believe that we were in touch with so many people...and every bit of help always came after the event... so we were never ready with the next thing he needed. (Amala, mother, 55 years) |
| 8. Need for additional support during "crisis points" | [George had] the most unbelievable panic attacks that would last for maybe four hours. For a lot of that time he would be in a completely dissociative state, shaking, screaming, running round the house, punching and kicking everything and those episodes were so terrible... so we were trying to get, even if it was on the phone, we wanted somebody to tell us how we could help him so that we could keep him safe and calm him down and try and hold him together. (Amala, mother, 55 years) |

Impact of Trauma on the Parent

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| 1. Parental post-trauma helplessness and anxiety | I'm very much aware that she's the one having to manage [her symptoms] and that anything I might say or do I can't swap places with her, which is what I'd like to do, and that anything else is kind of a nod towards it, but it doesn't...affect the actual, physical reality of what's happening to her. (Aubrey, mother, 46 years) |
|--|--|

- | | |
|---|--|
| 2. Parental blame of others or self-blame | Yeah I think [my spouse] suffered a lot, I needed him to get help because he was blaming himself. (Francis, mother, 36 years) |
| 3. Parental use of avoidance as a coping strategy | I avoided situations, being in an area with people. I would avoid groups...the other issue was where I had to go for CBT there was a double roundabout and then I would try and avoid [going] to that double round about, so I would take longer routes. (Lois, mother, 39 years) |
| 4. Parental reinstatement of pre-trauma routines as a coping strategy | I think because I had to go to work and I think because I had [the children] to look after, that's what actually kept me going I think. (Francis, mother 36 years) |
| 5. Parental positive psychological changes post-trauma | A good thing I would say is that there are lots of things that we used to care about that we don't care about anymore. Which is what other people think of us, what we look like. It does sort out what matters, so there are some good things about it. (Amala, mother, 55 years) |
| 6. Parental psychological treatment experienced as helpful | I found the counselling very useful because she actually got me to admit it to myself what had happened, which for a long time I didn't want to talk about. (Lois, mother, 39 years) |
| 7. Parental experiences of social support | I would say... maybe about 10 people have rallied round us in a big way...a lot of it has just been visits at home where we've all just socialised. One person has been a daily emailer. So every single night [they] email and say "you doing OK?" (Amala, mother, 55 years) |

Note: All quotes have been anonymised with pseudonyms assigned by the researcher.

Appendix 8: Paper 4 Approval Letters

NRES ethics approval letter for the PROTECT study



NRES Committee South Central - Oxford A

Bristol Research Ethics Committee Centre
Whitefriars
Level 3 Block B
Lewins Mead
Bristol
BS1 2NT

Telephone: 0117 342 1331

12 February 2014

Dr Sarah Halligan
Reader in Developmental Psychopathology
University of Bath
Department of Psychology
University of Bath
Bath
BA2 7AY

Dear Dr Halligan

Study title: Parental Responses to Child Experiences of Trauma: the Role of Trauma Specific Behaviours and Parenting Style in Facilitating Child Psychological Adjustment
REC reference: 13/SC/0599
IRAS project ID: 137454

Thank you for your letter of 11 February 2014. I can confirm the REC has received the documents listed below and that these comply with the approval conditions detailed in our letter dated 22 January 2014

Documents received

The documents received were as follows:

Document	Version	Date
Covering Letter		11 February 2014
Participant Information Sheet: Parent	3	10 February 2014
Participant Information Sheet: Children (6-10 years)	3	10 February 2014

Approved documents

The final list of approved documentation for the study is therefore as follows:

Document	Version	Date
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Advertisement	Leaflet for Emergency Department 1	06 November 2013
Advertisement	Poster for Emergency Department v.2	08 January 2014
Covering Letter		11 February 2014
Investigator CV	Sarah Halligan	
Letter from Sponsor		18 October 2013
Letter of invitation to participant	Emergency Department v.2	08 January 2014
Letter of invitation to participant	Postal v.2	08 January 2014
Other: Letter from Funder		22 July 2013
Other: ESRC grant reviews		
Other: Background Interview Schedule	1	06 November 2013
Other: DSM		
Other: Child Trauma Narrative	1	06 November 2013
Other: Parent Child Joint Recall	1	06 November 2013
Other: Puzzle Task	1	06 November 2013
Other: University of Bath Policy: 4.2.24 Off-Campus working, Field trips and Work Placements	(February 2012)	
Participant Consent Form: Parent	2	08 January 2014
Participant Consent Form: Child Assent Form	1	08 January 2014
Participant Information Sheet: Child age 11-13 years	2	08 January 2014
Participant Information Sheet: Parent	3	10 February 2014
Participant Information Sheet: Children (6-10 years)	3	10 February 2014
Protocol	1	06 November 2013
Questionnaire: Parental Overprotection scale		
Questionnaire: Posttraumatic Diagnostic Scale		
Questionnaire: Depression Anxiety Stress Scales		
Questionnaire: UCLA PTSD Reaction Index		
Questionnaire: Revised Children's anxiety and Depressions Scales		
Questionnaire: Child Posttraumatic Cognitions Inventory		
Questionnaire: Parental Trauma Responses Questionnaire	1	06 November 2013
Questionnaire: Modified Child Trauma Memory Questionnaire	1	06 November 2013
Questionnaire: Child Posttraumatic Coping Scales	1	06 November 2013
REC application		
Response to Request for Further Information		15 January 2014

You should ensure that the sponsor has a copy of the final documentation for the study. It is the sponsor's responsibility to ensure that the documentation is made available to R&D offices at all participating sites.

13/SC/0599**Please quote this number on all correspondence**

Yours sincerely



Miss Gemma Oakes
REC Assistant

E-mail: nrescommittee.southcentral-oxforda@nhs.net

Copy to: Prof Jane Millar, j.i.millar@bath.ac.uk
Ms Susan George, susan.george@uhbristol.nhs.UK

NRES ethics approval letter for the PYCES study



Health Research Authority

East of England - Cambridge South Research Ethics Committee

The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

12 May 2016

Dr Tim Dagleish
Program Leader
MRC Cognition & Brain Sciences Unit, Cambridge
15 Chaucer Road
Cambridge
CB2 7EF

Dear Dr Dagleish

Study title:	A pilot randomised clinical trial of trauma-focused cognitive behaviour therapy for posttraumatic stress disorder (PTSD) in young children aged 3-8 years (PYCES)
REC reference:	12/EE/0458
Amendment number:	Amendment 3, 19.04.16
Amendment date:	20 April 2016
IRAS project ID:	84324

The above amendment was reviewed by the Sub-Committee in correspondence.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Notice of Substantial Amendment (non-CTIMP) [Signed by Professor Dagleish and Professor Gathercole]	Amendment 3, 19.04.16	20 April 2016
Participant information sheet (PIS) [PTSD Trial - Parent Information Sheet - Tracked]	6	18 April 2016
Participant information sheet (PIS) [PTSD Screening - Parent Information Sheet - Tracked]	5	18 April 2016
Participant information sheet (PIS) [PTSD Case Control - Parent Information Sheet - Tracked]	4	25 September 2013

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

12/EE/0458:	Please quote this number on all correspondence
--------------------	---

Yours sincerely



Dr Leslie Gelling
Chair

E-mail: nrescommittee.eastofengland-cambridgesouth@nhs.net

Enclosures: List of names and professions of members who took part in the review

Copy to: Ms Beth Muldrew, Cambridgeshire & Peterborough NHSFT

East of England - Cambridge South Research Ethics Committee

Attendance at Sub-Committee of the REC meeting on 12 May 2016

Committee Members:

<i>Name</i>	<i>Profession</i>	<i>Present</i>	<i>Notes</i>
Dr Leslie Gelling	(Chair) Reader in Research Ethics	Yes	
Dr Frank Wells	(Vice-Chair) Retired Pharmaceutical Physician	Yes	

Also in attendance:

<i>Name</i>	<i>Position (or reason for attending)</i>
Nicola Kohut	REC Assistant

NRES ethics approval letter for the PROSPECTS study



Health Research Authority

NRES Committee East of England - Cambridge South

The Old Chapel
Royal Standard Place
Nottingham
NG1 6FS

Telephone: 0115 8839435

20 September 2013

Dr Richard Meiser-Stedman
MRC Clinician Scientist Fellow
MRC Cognition & Brain Science Unit
15 Chaucer Road
Cambridge
CB2 7EF

Dear Dr Meiser-Stedman

Study title:	Cognitive therapy for PTSD following multiple trauma exposure in children and adolescents: a case series
REC reference:	13/EE/0262
IRAS project ID:	133107

Thank you for your letter of 17 September 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager, Trish Wheat.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Non-NHS sites

The Committee has not yet been notified of the outcome of any site-specific assessment (SSA) for the non-NHS research site(s) taking part in this study. The favourable opinion does not therefore apply to any non-NHS site at present. We will write to you again as soon as one Research Ethics Committee has notified the outcome of a SSA. In the meantime no study procedures should be initiated at non-NHS sites.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Advertisement	1	24 July 2013
Covering Letter		26 July 2013
Evidence of insurance or indemnity		
GP/Consultant Information Sheets	Trail notification 1	24 July 2013
Interview Schedules/Topic Guides	Child PTSD Diagnostic Interview version 1	24 July 2013
Interview Schedules/Topic Guides	Exit Interview version 1	24 July 2013
Interview Schedules/Topic Guides	Parent Diagnostic Interview - ADIS-P Supplement - Baseline Interview version 1	24 July 2013
Interview Schedules/Topic Guides	Child Comorbidity Diagnostic Interview	24 July 2013

	version 1	
Investigator CV	Dr Richard Meiser-Stedman	31 January 2013
Other: Study Flowchart	1	24 July 2013
Other: GP Letter - Trial Completion	1	24 July 2013
Other: GP Letter - Trial Notification	1	24 July 2013
Other: MRC Funding Award Letter		
Participant Consent Form: 8-10 years assent form	1	11 September 2013
Participant Consent Form: 11-15 years consent form	1	11 September 2013
Participant Consent Form: Parent/Guardian	1	24 July 2013
Participant Consent Form: 16-17 years	1	11 September 2013
Participant Information Sheet: 8-10 year olds	2	11 September 2013
Participant Information Sheet: 11-17 year olds	2	11 September 2013
Participant Information Sheet: Parents	2	11 September 2013
Protocol	1	24 July 2013
Questionnaire: Child Questionnaires	1	24 July 2013
Questionnaire: Parent Questionnaires	1	24 July 2013
REC application	133107/482568/1/773	17 July 2013
Response to Request for Further Information		17 September 2013

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document “*After ethical review – guidance for researchers*” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

13/EE/0262

Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at <http://www.hra.nhs.uk/hra-training/>

With the Committee's best wishes for the success of this project.

Yours sincerely



pp Dr Leslie Gelling
Chair

Email: NRESCommittee.EastofEngland-CambridgeSouth@nhs.net

Enclosures: "After ethical review – guidance for researchers" [\[SL-AR2\]](#)

Copy to: Mrs Mandy Carter
Dr Rachel Kyd, Cambridgeshire & Peterborough Foundation NHS Trust

University of Bath ethics approval email

----- Original Message -----

Subject:Ethics 14-035

Date:Wed, 05 Mar 2014 15:07:08 +0000

From:Psychology Ethics Committee <psychology-ethics@bath.ac.uk>

To:Sarah Halligan <S.L.Halligan@bath.ac.uk>

Dear Sarah Halligan

Reference Number 14-035

The ethics committee have considered your application for the study entitled 'Parental responses to child experiences of trauma: PROTECT study' and have given it full ethical approval.

Best wishes with your research.

Yours sincerely

Dr Helen Lucey
Chair Psychology Ethics Committee
University of Bath

Information about making an ethics application can be found at

<http://moodle.bath.ac.uk/course/view.php?id=52192>

Appendix 9: Paper 4 Initial PRCET Scale Items.

Table 5.8

Initial 44 Item PRCET Appraisals Scale

Appraisals Items	
1	Our family will never be the same again.
2	I have to make sure I can protect my child all the time.
3	I keep thinking how it could have been even worse than it was.
4	What happened has changed the way that people see our family for the worse.
5	My child has been permanently damaged by the frightening event.
6	I blame myself for what happened.
7	What happened to my child is down to me as a parent.
8	My child has been emotionally scarred by the frightening event.
9	My child might easily go to pieces if I don't protect them from their fears.
10	Our family has been disrupted really badly by what happened.
11	Another parent would not have let this happen.
12	My child is not going to be able to cope in the future now.
13	My child is not safe when they are away from me.
14	I ask myself over and over why this happened to my child.
15	I get upset or angry when I am reminded of what happened to my child.
16	Others must wonder if I am safe looking after children.
17	My child would not be able to deal with being reminded of what happened.
18	If my child has any more stress it will seriously damage him/her
19	My child is not tough enough to cope with things that can happen.
20	I keep thinking again and again "If only this hadn't happened to us."
21	The world is too dangerous for my child.
22	I failed to look after my child properly.
23	My child could be hurt by anyone.
24	Good parents keep an eye on their children 100% of the time.
25	My child is always going to be anxious and upset now.
26	I keep on wishing that I could go back in time and stop the event from happening.
27	My child was so badly scared by the frightening event that they won't get over it.
28	Our family cannot recover from this sort of stress.
29	Our family will not get back to the way we were before the event happened.

- 30 I cannot trust anyone else to look after my child.
 - 31 I am not going to risk my child being hurt again in the future.
 - 32 I should have done more to keep my child safe.
 - 33 Others have judged me for what happened.
 - 34 Others blame me for what happened to my child.
 - 35 It's completely up to me to make sure that my child is safe.
 - 36 It is extremely upsetting to imagine how my child felt during the frightening event.
 - 37 I find it hard to control my feelings about what happened to my child.
 - 38 Our family cannot cope very well with stress now.
 - 39 Anything could happen to my child when I am not around.
 - 40 I could not bear it if my child was ever hurt or threatened again.
 - 41 I can't bear to think about what happened to my child.
 - 42 I keep wishing we could have the life we had before the event happened.
 - 43 I can't stop thinking about what could have been done to stop the event from happening.
 - 44 Others must think I am a terrible parent.
-

Table 5.9


Initial 34 Item PRCT Behaviour Scale

Behaviour Items	
1	I avoid talking about the event because I don't want to upset my child.
2	I take extra care to make sure that our family is safe.
3	If my child mentions what happened I try to distract them so they talk about something else instead.
4	I try to keep conversations away from what happened in the event.
5	I check every place we visit now, to make sure that there is nothing dangerous.
6	I am careful about what we watch on the television and internet, so my child is not reminded of what happened.
7	I've talked to my child about how they felt at the time of the frightening event.
8	I avoid places, people or activities that might remind my child of what happened.
9	I try never to take my child near reminders of what happened.
10	I don't let my child do anything that might be risky now.
11	I'll talk about what happened openly, even if my child is there.
12	I warn my child about possible dangers whenever I can.
13	I've talked to my child about their feelings when they remember what happened.
14	I tell my child not to think about what happened.
15	I tell my child to put any thoughts or worries about what happened out of their head.
16	Since the event, I try to get my child to do exactly the same things that they always did.
17	If my child brings up what happened then I make sure I spend some time talking about it with them.
18	Since the event I make sure I can always contact my child if s/he is not with me.
19	I try not to let my child's possible fears or worries after the event change what we do.
20	I've tried not to change my child's usual routine.
21	When someone in my family mentions the event, I tell them to stop bringing it up.
22	I try to make my child understand that the world isn't safe.
23	I talk about the frightening event with my child just like I do anything else.
24	I try to stop other people talking about what happened in front of my child.
25	I've taken my child places that are likely to remind them of what happened.
26	I've tried to keep our lives as normal as possible since what happened.
27	Since the event I have stopped my child from going some places that they used to go to.
28	I plan with my child what they should do in an emergency.
29	I don't discuss what happened in front of my child.

- 30 I tell my child never to take any risks.
 - 31 I have stopped my child from doing certain things so that he/she is not reminded of what happened.
 - 32 I answer any questions my child has about what happened as fully as I can.
 - 33 I tell my child not to trust anyone.
 - 34 I need to know where my child is all the time, since the event happened.
-

Appendix 10: Paper 5 Approval Letters



University of Reading approval email

2015-023-CC - How do young people and their
parents react following a traumatic event? 




James Douglas Saddy <j.d.saddy@reading.ac.uk>



 Reply all | 

Tue 07/04/2015 21:58

To: PCLS Ethics <pclsethics@reading.ac.uk>; Catharine Creswell <c.creswell@reading.ac.uk>;
Victoria Williamson 

Inbox

This message was sent with high importance.



| Action Items



Dear Cathy, I find that this proposal meets the school's ethical requirements. Green
Light.

I apologise for the delay. I lost track of this email.

best regards,
Doug

Stellenbosch University Health Research Ethics Committee approval letter



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

Approval Notice Response to Modifications- (New Application)

30-Jan-2015
Tomlinson, Mark MR

Ethics Reference #: N14/08/112

Title: How do young people and their parents react following a traumatic event?

Dear Professor Mark Tomlinson,

The **Response to Modifications - (New Application)** received on 06-Nov-2014, was reviewed by members of Health Research Ethics Committee 1 via Expedited review procedures on 30-Jan-2015 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: 30-Jan-2015 -30-Jan-2016

Please remember to use your **protocol number** (N14/08/112) on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Translation of the consent document to the language applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.


For standard HREC forms and documents please visit: www.sun.ac.za/rds

If you have any questions or need further assistance, please contact the HREC office at 219389156.

Included Documents:

Protocol
MOD_Protocol
Declaration - Dr S Halligan
Checklist

Parent Background Information Interview
Qualitative Parent Interview Schedule A
UCLA Parent Questionnaire
Child PTSD Checklist
Declaration - Prof M Tomlinson
Participant information leaflet & consent form
MOD_Parent or guardian consent form
MOD_Consent form for children
MOD_Protocol Synopsis
Protocol Synopsis
UCLA Child Questionnaire
Young child information sheet
Data collector procedures
Application form
CV - Prof M Tomlinson
Parent Informed Consent
MOD_Budget
CV - Dr SL Halligan
MOD_Cover letter response to Modifications
Child PTSD Checklist Parent Version
Budget

Sincerely, 

Franklin Weber
HREC Coordinator
Health Research Ethics Committee 1

Investigator Responsibilities

Protection of Human Research Participants

Some of the responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the HREC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research.
2. Participant Enrolment. You may not recruit or enrol participants prior to the HREC approval date or after the expiration date of HREC approval. All recruitment materials for any form of media must be approved by the HREC prior to their use. If you need to recruit more participants than was noted in your HREC approval letter, you must submit an amendment requesting an increase in the number of participants.
3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the HREC-approved consent documents, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least fifteen (15) years.
4. Continuing Review. The HREC must review and approve all HREC-approved research protocols at intervals appropriate to the degree of risk but not less than once per year. There is **no** grace period. Prior to the date on which the HREC approval of the research expires, it is **your responsibility to submit the continuing review report in a timely fashion to ensure a lapse in HREC approval does not occur.** If HREC approval of your research lapses, you must stop new participant enrolment, and contact the HREC office immediately.
5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, number of participants, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the HREC for review using the current Amendment Form. You may **not** initiate any amendments or changes to your research without first obtaining written HREC review and approval. The **only** exception is when it is necessary to eliminate apparent immediate hazards to participants and the HREC should be immediately informed of this necessity.
6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research-related injuries, occurring at this institution or at other performance sites must be reported to the HREC within five (5) days of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the HRECs requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Health Research Ethics Committee Standard Operating Procedures www.sun025.sun.ac.za/portal/page/portal/Health_Sciences/English/Centres%20and%20Institutions/Research_Development_Support/Ethics/Application_package All reportable events should be submitted to the HREC using the Serious Adverse Event Report Form.
7. Research Record Keeping. You must keep the following research-related records, at a minimum, in a secure location for a minimum of fifteen years: the HREC approved research protocol and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the HREC
8. Reports to the MCC and Sponsor. When you submit the required annual report to the MCC or you submit required reports to your sponsor, you must provide a copy of that report to the HREC. You may submit the report at the time of continuing HREC review.
9. Provision of Emergency Medical Care. When a physician provides emergency medical care to a participant without prior HREC review and approval, to the extent permitted by law, such activities will not be recognised as research nor will the data obtained by any such activities should it be used in support of research.
10. Final reports. When you have completed (no further participant enrolment, interactions, interventions or data analysis) or stopped work on your research, you must submit a Final Report to the HREC.
11. On-Site Evaluations, MCC Inspections, or Audits. If you are notified that your research will be reviewed or audited by the MCC, the sponsor, any other external agency or any internal group, you must inform the HREC immediately of the impending audit/evaluation.

Appendix 11: Paper 5 Participant Information Sheet

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT:

How do children and their families react following a traumatic event?

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: Proffessor Mark Tomlinson

ADDRESS: Department of Psychology, Wilcocks Building, Ryneveld Street, Stellenbosch, 7600

CONTACT NUMBER: 0833014868

Why are we doing this research?

We would like to invite you to join in our research study. Before you decide whether to take part, it is important that you know why the research is being done and what it involves. Please ask the research team any questions that you have about any part of this project. It is very important that you understand what this research is about and how you could be involved. Also, taking part in the research study is **entirely voluntary** – it is completely up to you to decide if you want to be part of our study. If you say no, this will not affect you negatively in any way. You are also free to stop taking part in this study at any time, even if you do agree to take part, without needing to give a reason. There will be no problem should you choose to stop taking part and your normal health care will not be negatively affected.

Who has reviewed the study?

Before any research goes ahead it has to be reviewed by a Research Ethics Committee. They make sure that the research is fair. Your project has been checked and been given approval by the **Health Research Ethics Committee at Stellenbosch University** and will be run according to the ethical guidelines and principles of the International Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

We are running a research study looking at how children cope with being involved in any kind of frightening experience. We hope that 20 parents and their child will take part. Many children feel afraid or upset following frightening experiences, and for some these feelings can be very strong or can last a long time. Parents may be able to help children with their feelings following frightening events, and we want to learn more about the ways in which they can do this. If we can find out more about the things parents do that are particularly helpful for children, then in the future we may be able to provide better information for families about ways of helping children to cope with frightening events.

Why have I been invited to take part?

You have been invited to participate because you have a child aged between 6 and 16 years who experienced a frightening event.

What happen if I take part?

Researchers would spend 40-minutes to 1-hour asking you some questions. They will ask for some background information about yourself and your family, and will also ask about your child's frightening experience(s) and their thoughts, feelings and behaviours since. Also, the researcher will spend time asking about your own reactions to your child's experience, including any support that you have received, needed or provided. If you agree, we will record what you say during the interview so that we can study the responses to our interviews. The assessment can be completed in your home or at the research center if you prefer.

In addition, we would like to invite your child to meet with our researcher to answer some questions about their frightening experience, and their thoughts, feelings and behaviours since. This will take about 10 minutes, and your child can complete the questionnaires at the same time as you. Even if your child does not want to take part, you may still be able to join in our study.

What are the possible benefits of taking part?

Taking part in our study is unlikely to be of direct help to you, although some people find it helpful to have the chance to talk about distressing events. We hope that the research will help us understand how parents and others can best support children following a frightening experience, and may result in better care in the future for children who are experiencing difficulties following a frightening event.

Who is running this research?

This study is a joint project between Stellenbosch University and the University of Bath (UK), which is funding the study.

Are there any risks involved in taking part in this research?

Although talking about frightening events can be upsetting, we do not think that it is likely that parents or children taking part in our study will become very distressed as a result. If the interview or questionnaire does prove very upsetting for you or your child, study researchers will be available to help. If necessary, they can put you in touch with health professionals who are experienced in working with children and their parents.

What happens to my information if I stop taking part the study?

If you withdraw from the study it is up to you whether we use any information we have already collected. If you want your information to be removed from the study then you just need to let us know and your data will be destroyed.

Will anyone else know I'm doing this?

All information collected during the research will be kept strictly confidential. This means we will not share any of the personal information you provide us with anyone outside the research study team. The assessments that you complete will be labelled with a number, not with your name, and will be kept securely in locked cabinets or on secure servers at the University. Assessments will only be looked at by the researcher team. Your assessments will be kept for 10-years after the study has finished and then will be destroyed. The only time that we would share your information without your agreement is if we believe that you or someone else is at serious risk of harm or danger. In this case, we would talk to you first.

The results of the study may be published in order to help other families who have experienced frightening events, but we would not publish any details that might identify you or your child. We would not share your personal details or other information that is likely to identify you or your child.

Will I be paid to take part in this study and are there any costs involved?

Each family will receive R120 as a thank you for taking part in the study. If you would like to complete the questionnaire or interview at the research center we will also pay any transport expenses. There will be no costs involved for you if you do take part in the study.

Is there any thing else that I should know or do?

- You can contact Professor Mark Tomlinson at tel. 0833014868 if you have any further questions or experience any problems.
- You can contact the Health Research Ethics Committee at 021-938 9207 if you have any concerns or complaints that the research team have not been able to help with.
- We will give you a copy of this information sheet and consent form to keep.

Declaration by participant

By signing below, I agree to take part in a research study entitled **Psychological Support for Children Following Trauma: Investigation of an Extreme High-Risk Community (PsySoCT)**.

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and I am happy with the answers given to any questions.
- I understand that taking part in the study is **voluntary** for myself and my child; we have decided ourselves whether or not to join in the research and we have not been pressurised to take part.
- My child and I may choose to leave the study at any time and we will not be penalised or prejudiced in any way.
- My child and I may be asked to leave the study before it has finished, if the research team feels it is in our best interests, or if we do not follow the study plan, as agreed to.
- I agree to both myself and my child taking part in the above study.

Signed at (*place*) on (*date*) 2014.

.....
Signature of participant

.....
Signature of witness

Declaration by investigator

I (*name*) declare that:

- I explained the information in this document to
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use a interpreter. *(If a interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) on (*date*) 2014.

.....
Signature of investigator

.....
Signature of witness

Declaration by interpreter

I *(name)* declare that:

- I assisted the investigator *(name)* to explain the information in this document to *(name of participant)* using the language medium of Afrikaans/Xhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at *(place)* on *(date)*

.....
Signature of interpreter

.....
Signature of witness

Appendix 12: Paper 5 Themes and Sub-themes

Table 6.3

Themes and Sub-Themes Following Thematic Analysis and Sample Quotations

Theme and sub-themes	Sample quote
Post-trauma Perceptions of the Child	
1. Perception of the child as changed post-trauma	Onele grew up a quiet child, she was alright until the accident, then her mind totally changed. I do not get her at all, she does not know if she is at school or not, she does not write at school. (Lulama, grandmother, 57 years)
2. Behavioural indicators of poor adjustment	Interviewer: Did you notice any change in him after the incident? Mother: He did not play with his friends, even when they came to him he would not look interested... He lost appetite, would not eat his breakfast and would not eat his lunch, he would come back with his lunchbox the same way it was when he left. He lost weight and had bad skin. (Nobuntu, mother, 29 years)
3. Child safety behaviours	Phila did not feel better.... he [now] likes carrying a knife and when I ask him what he is doing caring a knife all the time, he said he is preparing for those shit if they come to [him] unexpectedly, he would stab them. (Fezeka, mother, 31 years)
4. Checking others impressions of the child	Everything of his was stable but now nothing he does is stable.... Even his class teacher...told me that Bhutana is not the same, you tell him this, he will say something else, he does not say what you are saying at the present

moment, he says something else and when you tell him something he will not remember. (Kuhle, mother, 39 years)

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| 5. Reliance on behaviour to determine child's emotional response | You would see that she does not feel like she is a child that belongs here, you would see that she is hurt...she would be as if she is not from here. Even if someone would enter the house, they would think that she is not from here. (Bongani, mother, 32 years) |
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Caregiver Warm Support

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| 1. Reassurance | <p>Interviewer: As you are now staying with Buli and you said she is scared of man, what have you said to her as an effort to help her?</p> <p>Mother: I told her that another person will not be like the person she saw stabbing her aunt, I tell her that people are different, not all of them are dangerous. (Sanele, mother, 43 years)</p> |
| 2. Simultaneous emphasis of danger | I told her that person is not here, he was sentenced to life in prison and she said that she does not really trust that, maybe that person can escape and kill her. I told her that he is not here now... but I told her that if she ever sees him, she must run. (Zola, mother, 50 years) |
| 3. Encouragement of faith-based coping | I make sure that I take him to the nearby church and make sure he is in church...I wish he would go to church and learn church things... There is also Sunday school there so he would learn to pray, so that when something bad happens to him, he would pray for himself. (Nobuntu, mother, 29 years) |

4. Encouragement of a positive perspective of the trauma
He must not think his life is on that wheelchair. He must know that life goes on, it does not end from the wheelchair. More especially, that he has to still go to school and it is something that we are working on. (Mihlali, aunt, 45 years)

5. Acquisition of faith-based items
Mother: My child has no problem. I also have no problem because I have faith in what I am using. I just encourage them that they should drink the water from the church three times a day and they must also use the soap. Since I have faith in that, I can see they do not have a problem.

Interviewer: The water and the soap are protecting your family?

Mother: Yes. (Mandisa, mother, 43 years)

6. Efforts to interact with the child more sensitively
I knew she will not be right, so I decided to be soft and be next to her all the time. I did not force her to go to school and I did not leave her to go to work. I wanted to be close to her and spend time with her. I stayed with her and I saw that she is becoming right. (Babalwa, mother, 29 years)

7. Ensuring teachers aware of trauma
Mother: I [told] their father that we must follow them to school to look how they are doing and when we got there the teachers said they didn't notice anything...I was worried that maybe the teacher will be busy teaching and they are not concentrating, thinking about what happened in their home. Maybe the teacher gave him some paper and he does nothing on it, I did not want the teacher to have difficulties with them and I did not report what happened. (Sisipho, mother, 36 years)

8. Providing child with good physical care
Onele is not writing at school...every time I go to school, [I'm told] this child does not write. She does nothing and I am the one who does everything for her. I made means for her to have a birth certificate, Government grant money, I even bought her school things. She is becoming worse as she grows up... I buy tracksuits, I do her hair, but the problem is she does not write. The teachers say she is clean, there is nothing that shows she is not taken care of. (Lulama, grandmother, 57 years)

Promotion of Avoidance

1. Discussion avoidance to prevent distress
When I talk to her, especially about the incident that nearly happened to her, she cries and I decide to let it go seeing that she is hurting, I would let it go. (Bongani, mother, 32 years)
2. Removal of child from contact with trauma reminders
On our way on the veld to Philippi there were bushes there with stones and he said "look Mom, this is where my uncle and dad [died]," I tried to disturb him and said let's go. (Kuhle, mother, 39 years)
3. Encourage child to forget the trauma
Mother: I support him...I tell him not to nurse the problem he was in. He must let things go, because if he does not other important things in his life will come in a stand still.
Interviewer: Things like what?
Mother: For example he is a school child, maybe he would be thinking about the incident while doing his school work and the thought would disturb him. (Vela, mother, 43 years)

Warnings and Protection from Future Harm

1. Caregiver encourages child to view community as dangerous
I told her...people in Cape Town are shot like birds. You enter your home and it might happen that there is someone hiding wanting to shoot someone and they will shoot you because they are angry [that] they did not get the person they want...I tell them that the doors must always be closed because [our neighbourhood] is not cool and they listen to me. (Mandisa, mother, 43 years)

2. Efforts to change the child's routine I was thinking he would change because at the hospital I told him to let go of his friends because he nearly died because of his friends but he did not listen to me. The day he arrived [home] from the hospital he went to his friends. (Fezeka, mother, 31 years)

3. Warnings and threats of trauma reoccurrence I tell her that if you keep on doing what you doing wandering at night you will get raped, have your womb removed before time, or even have HIV and not a normal life. (Thembeke, aunt, 38 years)

Perception of and Care Sought for Post-trauma Difficulties

1. Medical treatment sought for child's post-trauma difficulties When she got home she was terrified and said “Mom I saw this and that” ...she was not right that day, she says she had a picture of what she saw [in her mind] ...and I took her to the clinic and I told them about the incident, they said that they will give her [paracetamol] and pills for her to be right so that she can be able to sleep. She got the pills and drank them, she went to school and she was alright. (Mandisa, mother, 43 years)

2. Barriers to medical treatment We went home to fetch Lunga and took him to the hospital.... While in hospital we were not received well ... there were other people there who were also injured, others were laying on the floor bleeding but were not attended to. I also saw that time went by without us being attended to and my son is in pain. (Mncedisi, mother, 43 years)

3. Barriers to psychological treatment The child was taken to counselling. She was given dolls there to show what happened and she did, she showed them and.... they said they were going to call us, but they never did...Even the counselling, she never went again. [The counsellors] went to school to collect reports about her, they wanted to know how she was after the incident. They never came back again. (Babalwa, mother, 29 years)

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| 4. Perceptions of psychological treatment as helpful | What I have always wished for, but I do not know how to go about it, is that my child meets someone like a social worker who tell him that in order to be right you need to stop smoking and drinking and things like that... so he can be able to save himself from those things like [being assaulted again]. (Mncedisi, mother, 43 years) |
| 5. Lack of caregiver engagement in child psychological treatment | <p>Mother: I did not attend [his counselling]. I don't even know what he said there. I really want the social workers because I don't like the child who is not open, he could be in trouble...</p> <p>Interviewer: So wish that the sessions include you?</p> <p>Mother: Yes.</p> <p>Interviewer: Because the ones from school, you are not sure how it went?</p> <p>Mother: Yes, I am not sure, truly. (Nobuntu, mother, 29 years)</p> |
- Effect of Trauma on the Caregiver
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| 1. Caregiver distress | <p>Interviewer: As for now what do you think about the incident, is there something you think of it?</p> <p>Mother: It has not faded because even when I am asleep I dream about it happening to her...it does not go away. (Bongani, mother, 32 years)</p> |
| 2. Caregiver blame of self or others | <p>Interviewer: What is making you angry?</p> <p>Mother: What he did to my child, letting someone in my house, not knowing he had other plan. You regard him as a child [and] all along he is a criminal. I blame myself for this, I will stop blaming myself when he is behind bars so that my child can be at peace.</p> <p>Interviewer: Why do you blame yourself?</p> <p>Mother: Because his mother called saying her child wants to visit and I said yes. I should have never said yes...It should have never happened. (Olwethu, mother, 46 years)</p> |

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| 3. Caregiver coping by seeking justice post-trauma | <p>Interviewer: You mentioned that you will be at peace only when the boy is arrested.</p> <p>Mother: Yes, only when he is arrested....Because that boy came to me, so I feel my son will feel that my mom brought someone home and abused me and she did nothing about it. That is why I feel he should be arrested. At least when my child hears that his mother did something it he will feel better. (Olwethu, mother, 46 years)</p> |
| 4. Caregiver experiences of positive psychological change post-trauma | <p>Interviewer: How do you feel about your belief now?</p> <p>Mother: I still believe....[My faith] has grown because there are many things, many challenges and tests. When they happen I cannot just say, no God does not love me anymore... indeed God has helped in that He just wants me to see His grace.
(Nobuntu, mother, 29 years)</p> |
| 5. Caregiver experiences of social support | <p>Mother: I went to church and at home we would talk about it... I felt like there are people next to me. Even the women in the community would come and tell me when the trial starts I should tell them they will come with me to court for moral support. (Babalwa, mother, 29 years)</p> |
| 6. Caregiver use of avoidance as a coping strategy | <p>Mother: The reason why I sell things is that I want people to come by to give me that chance to interact with people, it makes me forget...I like selling thing that the children like to buy, like sweets. I know every minute they would come buy 10c sweets. I even make chicken feet, that keeps me busy a lot, it makes me forget for a while and I don't get depressed.</p> |

7. Caregiver awareness of community trauma exposure yet unaware of how other families cope
- Interviewer: OK, now generally asking, what do other families in your community do to overcome incidents that happen to their children, incidents similar to that of Esihle?
- Mother: I really don't know, I've never seen any family deal with their problems, and there is no one who ever told me their problems.
- Interviewer: People in your community do not talk about such things?
- Mother: No, and there is no one that comes to you even if they heard what had happen to you to advise you to do this or that way...I never got that. (Babalwa, mother, 29 years)
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Note: All quotations have been anonymised with pseudonyms assigned by the researcher.